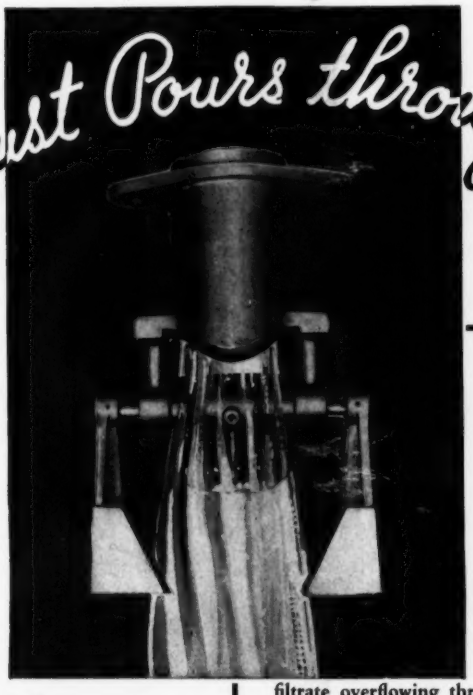
PAPER TRADE JOURNAL

Reg. U. S. Pat. Off.

Vol. CII APRIL 30, 1936 No. 18

Filtrate just Pours through this Valve...



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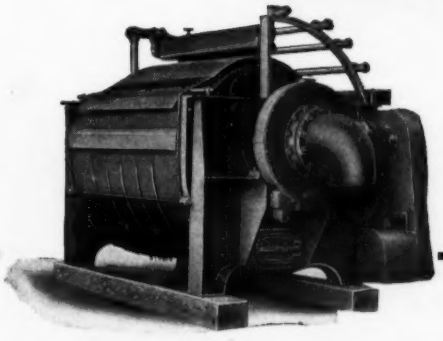

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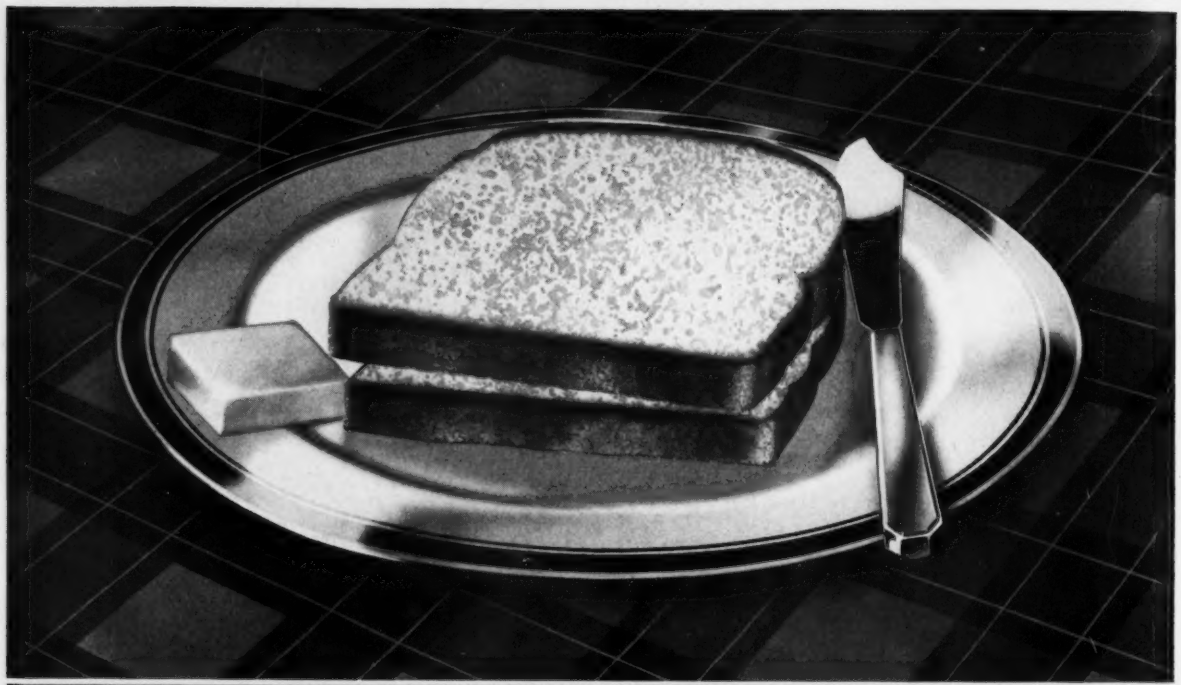

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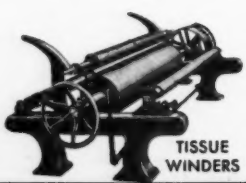

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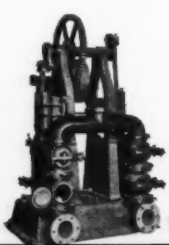

PUMPS

CYLINDER MOULDS

BEATERS • FLOOR DRIVES • STEAM JOINTS • CALENDERS • REELS

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ESTABLISHED 1872

SIXTY-FOURTH YEAR

THE INTERNATIONAL WEEKLY OF THE PAPER AND PULP INDUSTRY AND THE PIONEER PUBLICATION IN ITS FIELD

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Want and For Sale Advertisements, 52-53

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On the left—a standard straight bar for all ordinary beating requirements.

Center—a Dowd staggered bar; a design that will increase circulation, suction and break-up of stock; also reduce friction and lower the risk of burning.

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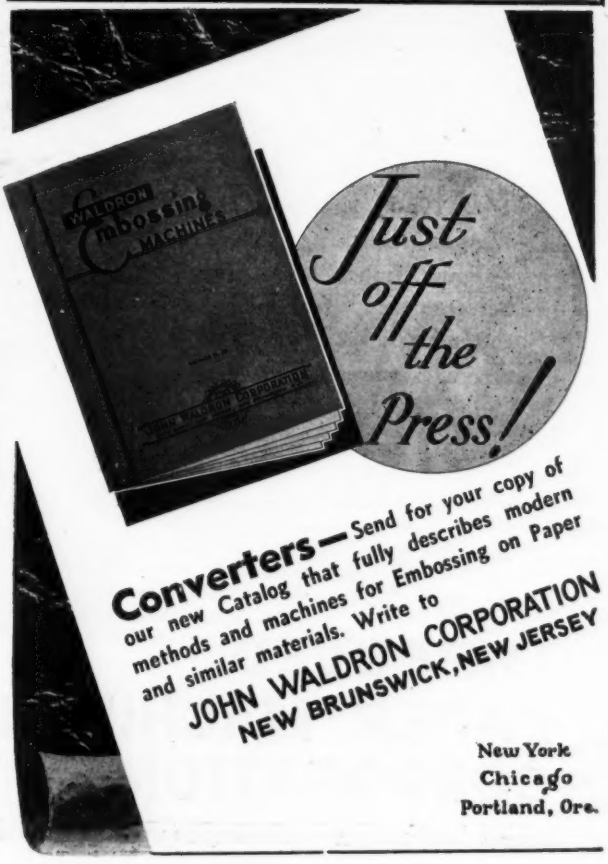

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February 10, 1936—Showing 5-foot diameter Vacuum Save-all in foreground—three-roll Hydraulic Wet Machine in background — for prominent Michigan Sulphite Mill. Also note two 2-foot by 8-foot Vacuum Washer Thickeners under construction for new mill of Union Bag & Paper Corporation at Savannah, Georgia.

Centrifugal Screens
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Sectional View of "Impco" Assembling Floor, February 10, 1936 showing three "Impco" Centrifugal Knitters —Four "Impco" Centrifugal Screens ready for shipment to Union Bag & Paper Corporation, Savannah, Georgia.

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PAPER TRADE JOURNAL

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PAPER

SIXTY-FOURTH YEAR

PAPER

Established Feb. 17, 1899
Consolidated Nov. 16, 1899
with PAPER TRADE JOURNAL.

Vol. CII, No. 18 Thursday, April 30, 1936

Established Sept. 21, 1910
Consolidated Feb. 19, 1925
with PAPER TRADE JOURNAL.

Finds for Castanea Paper Co. in Sizing Suit

Judge Schoonmaker in Federal District Court for the Western District of Pennsylvania Finds that None of Claims in Suit Is Valid and That the Defendant Does Not Infringe Upon Any of the Claims of Patents in Suit

In the suit of the Raffold Process Corporation vs. the Castanea Paper Company tried some months ago before Judge Schoonmaker in the District Court of the United States, for the Western District of Pennsylvania, the Judge has found the following conclusions:—

None of the claims of the patents in suit is a valid claim.

The defendant does not infringe any of the claims of any part of the patents in suit.

The plaintiff's bill of complaint should be dismissed, with costs to the defendant.

In the suit, four patents all relating to the art of paper-making and having to do with paper-making ingredients and their conjoint use in the process of manufacturing paper, were involved.

Judge Schoonmaker's opinion and findings of fact are in part as follows:—

Rafteon Patent No. 1,803,642

Claims 1 and 8 of this patent are in suit; they are as follows:

"1. The method of manufacturing a sized paper filled with carbonate filler comprising adding carbonate filler, in an amount sufficient to impart a substantial degree of filling to the resulting paper, to previously sized fibre in the paper-making process under conditions favoring the minimizing of time of contact between the carbonate filler and the previously sized fibre, and thereafter making paper therefrom.

"8. The step in a method of manufacturing a sized paper filled with carbonate filler comprising adding a carbonate filler, in an amount sufficient to impart a substantial degree of filling to the resulting paper, to previously sized fibre when such fibre is in condition to be passed onto a web-forming device of a paper machine."

The process disclosed in this patent is the addition of the carbonate filler to a paper stock containing precipitated sizing material in process of being delivered to the paper-forming web under the principle defined in the patent as the minimizing principle, i. e., the reduction of the time and intimacy of contact between the filler and the sizing materials on the theory that upon long and intimate contact between the filler and the sizing the latter would be damaged or destroyed.

The first claim deals only with the element of the time of contact between sizing and filler material prior to their entry upon the web-forming device of a paper machine. The amount of time that would satisfy the minimizing principle is not stated.

The claim seems meaningless without that, and might properly be held void for uncertainty as to the scope of the claim.

If we turn to the patent specifications to see if we can get any light upon the time that will fulfill the requirements of the minimizing principle, we find that preferred methods consist in adding to the carbonate filler "at a point in the paper-making process where the intimacy of contact and time of contact of the carbonate filler and the sized fibre will be at a minimum." (See page 2, line 18.)

We construe that language to mean the least possible time that the paper-making machine will permit.

The only other statement that we can find in the specification as to the length of time that would satisfy the minimizing principle is found on Page 1, line 87 of the patent as follows:

"The time consumed from the point of mixing the ingredients in relatively concentrated state up to the point where the stock is to be diluted for delivery in the web-forming end of the machine is relatively long in comparison with the time during which the stock exists in dilute condition prior to its delivery to the web-forming end of the paper machine. The length of time during which the mix remains in a relatively concentrated condition may vary, of course, according to conditions, but it may be anywhere from as little as 15 or more minutes, as in certain extreme cases, up to a matter of a number of hours. On the other hand, the time during which the mix exists in a dilute state prior to its delivery to the web-forming end of the machine is in some cases a matter of only a few seconds and ordinarily not over a minute. Even under extreme conditions the time would never be in excess of 5 minutes."

As we construe the language, to satisfy the minimizing principle, you must add the carbonate filler to the paper stock mix where it exists in a dilute state immediately before its delivery to the web-forming end of the paper machine where the two alleged warring elements will only be in contact for a few seconds up to five minutes.

(Continued on page 37)

Big Newsprint Paper Consolidation Planned

Proposed Merger Reported to Have Backing of Strong American and British Banking Group—Achievement Would Prove Factor In Placing Industry On Healthy Basis—The Problems Involved, Would Be Tremendous

[FROM OUR REGULAR CORRESPONDENT]

MONTREAL, Que., April 27, 1936—While the various competitive plans for the re-organization of leading newsprint concerns in this country now in receivership are still in the negotiation stage, the newspapers here are giving prominence to rumors of a gigantic newsprint consolidation which they state has the backing of a strong American and British banking group.

An Important Factor

Such an achievement, it is recognized, would prove the one sure factor in placing the industry on a permanently healthy basis. Those in close touch with the situation, however, while admitting that one big merger is an attainment much to be desired, regard it as hardly within the bounds of practical achievement.

The problems involved in working out any such plan would be tremendous. Chief of these problems would be the development of a plan for exchange of securities which would prove acceptable to the bondholders and shareholders of the various companies with their widely divergent forms of capital structure and their differences in physical and geographical position in relation to wood supplies and market for their product.

Benefits To Be Derived

While the doubtful practicability of the one comprehensive merger is generally recognized, it is felt that out of the efforts there may emerge the consummation of two or more mergers among the larger producers. The benefits to be derived from such mergers would be very great, first in facilitating co-operation in marketing possibilities and second in substantial savings in transportation costs.

Position of Industry Better

The renewed efforts now under way looking towards mergers in the industry appears to be, in any event, a constructive factor in the outlook for the industry, indicating as they do a feeling on the part of those in a position to know that the position of the industry, both from a marketing and physical point of view, is better than it has been for some years now.

Urged to Buy Newsprint in United States

William G. Chandler, of the Scripps-Howard Newspapers, chairman of the Paper Committee of the American Newspaper Publishers Association, at the annual meeting of this organization last week in New York, in his report urged publishers to buy newsprint as much as possible from American or European mills in order to save themselves from threatened price control by Canadian manufacturers in coalition with the Canadian government.

After reviewing recent Canadian legislation, Mr. Chandler said:

"Now, under the Marketing Act, upon application to the Minister of Agriculture, a scheme for controlling marketing of newsprint may be put into operation. This scheme would be administered by a local board, and, according to *The Toronto Financial Post* of July 20, 1935, the newsprint industry would undoubtedly nominate the members of the local board. The board would have complete control over export of newsprint. It has power to ration markets, regulate prices and eliminate excess capacity."

Recent events and statements, he continued: "lead to the inevitable conclusion that the time is near when United States publishers who may purchase Canadian newsprint will not have to deal alone with the manufacturer of their choice but with a coalition of the Canadian Government and of the Canadian manufacturer."

Accordingly, he continued, the committee repeated its recommendation of last year, as follows:

"It would seem that the only defense publishers have against the intervention of the governments of the Provinces of Quebec and Ontario to force artificially an increase in newsprint market prices, is to place their commitments as far as possible with United States mills, with whose government they can deal directly, or with mills operating in foreign countries, whose governments have not threatened to interpose themselves into the newsprint market."

"To the foregoing," he continued, "it might be added that an arbitrary and drastic increase in price could be and should be met by a tightening down to the ratios between reading matter and advertising which prevailed prior to the depression. A curtailment of consumption probably in excess of 10 per cent might thus be achieved."

If it had not been for the announcement by certain American mills last fall, of their price for newsprint for 1936, he predicted, the price would have been fixed by what might be termed a "Canadian Government decree." He quoted *The Toronto Financial Post* that this would have meant an increase of $2.50 or $3 a ton.

Mr. Chandler praised James G. Stahlman, vice-president of the association, for his efforts to establish a newsprint manufacturing industry "to utilize the vast resources of timber in the South."

"The day does not seem to be far distant," he added. "when Southern newsprint will be a reality. Perhaps the reason it is not a reality today is because there was only a moderate advance in the price of newsprint at the beginning of this year. As an answer to the apparent determination of the Canadian Government to become a party to negotiations for the purchase of newsprint, it seems that it would behoove every publisher to give his encouragement to the founding of a new, important newsprint-producing center."

St. Regis Builds Warehouse at Harrisville

HARRISVILLE, N. Y., April 27, 1936—Construction of a large storehouse has been started by the St. Regis Paper Company, owners of the Harrisville Paper Mills here. The building is being constructed opposite the office section and will be 200 feet long and 80 feet wide. Plans also call for changing the roadbed inasmuch as the building is being erected on the present roadbed. It is said that the new building will be completed late in the spring.

Milwaukee, Wis., May Have New Paper Mill

Local Association of Commerce States Proposed Plant Will Be Erected On Milwaukee River Site—Fox River Valley Interests Reported Behind Venture—Warren Beale Appointed Manager of Consolidated's Biron Plant

[FROM OUR REGULAR CORRESPONDENT]

APPLETON, Wis., April 27, 1936—Prospects of a new paper mill in Wisconsin appear rather definite, although no details have been given out. Announcement was made last week by the Milwaukee Association of Commerce that the proposed mill was to be located at Milwaukee, and was to be erected on a site on the Milwaukee River. According to Irving J. Ott, manager of the Industries Division of the association, the mill is to be built by Fox River Valley interests, but he has declined to divulge their identity, pending the development of definite plans. The nature of the lines to be manufactured also is being kept confidential for the time being, but it is believed they will be specialties which will be supplied to numerous converting concerns now operating in Milwaukee.

New Appointments

Several new appointments have recently been announced.

The Consolidated Water Power and Paper Company has appointed Warren Beadle, Jr., as manager of its mill at Biron, Wis. He fills the vacancy left by the death of J. B. Purves. Mr. Beadle has been with the Consolidated company since 1915, and was master mechanic at the Biron mill up to the time of his promotion.

Felix Pagenstecher, who resigned recently as vice-president and sales manager of the Nekoosa-Edwards Paper Company, Nekoosa, Wis., has accepted a position with the International Paper Company, with headquarters in New York City. He will be associated with the book, bond and ground wood division.

Three appointments have been made to the staff of the Institute of Paper Chemistry, Appleton, Wis. They are: Dr. Alan J. Bailey, research assistant; Laurin S. Sabatke, and Charles M. Koon, technical assistants. Dr. Bailey comes from the University of Washington, where he has just received his Ph.D. degree. He formerly was in the federal forest protection service. Mr. Sabatke will obtain his B.S. degree in chemical engineering at Iowa State University this spring. He was with the U. S. Bureau of Standards for a year and a half, with the Maizewood Products Corporation for four years, and with Marathon Paper Mills Company, Rothschild, Wis., for six years. Mr. Koon is a graduate of the New York State College of Forestry at Syracuse. He was with the Columbia Note Company at Auburn, N. Y., for a short period, and then in the chemical laboratories of the Champion Fibre Company, Canton, N. C., for a year. Miss Margaret Forstner, Appleton, Wis., and Miss Helen Cornell, Sheboygan, Wis., have been appointed as secretaries at the Institute.

Robert Haslanger, who completed his studies in chemical engineering at the University of Wisconsin, Madison, Wis., in February, has taken a position with the Marathon Paper Mills Company, Rothschild, Wis. His home is at Marinette, Wis.

Kimberly-Clark Directors Re-Elected

All of the directors of the Kimberly-Clark Corporation, Neenah, Wis.; were re-elected at a recent meeting of stockholders. They are: F. J. Sensenbrenner, Ernst Mahler, J. S. Sensenbrenner, William Bonifas, S. F. Shattuck, J. C. Kimberly, C. B. Clark, Walter Kasten, Melvin Emerich, John Hancock, S. R. Stilp, W. H. Ryan, C. H. Sage and C. A. Sommers.

News of the Industry

Complying with an order issued by the National Labor Relations Board, following a hearing conducted February 26 by Robert M. Gates, trial examiner, employees of the Mosinee Paper Mills Company, Mosinee, Wis., held an election to determine who should be the bargaining agent. The secret balloting was conducted at the city council chambers under the supervision of Leonard C. Bajork and John J. Bertha, representing the labor board.

The ballot gave the production and maintenance departments 162 votes out of 246 cast favoring the International Brotherhood of Paper Makers and the International Brotherhood of Pulp, Sulphite and Paper Mill Workers as against the Mosinee mill council. In the paper making departments, the brotherhoods received 112 out of 128 votes cast. The mill council therefore was rejected as the bargaining agent. Laboratory chemists, shipping clerks, timekeepers, foremen and supervisory and clerical employees were not permitted to vote.

The unions contended they should be the sole bargaining agents, and when the company insisted the mill council should be the agent, an appeal was made to the labor relations board, created under the Wagner Act, with the resultant hearing and the call for the election. The polls were kept open for twelve hours, and tellers were representatives of both the mill council and the unions.

The state recently acquired 80 additional acres and eventually will have most of it under tree cultivation. The nursery is adjacent to those maintained by the Nekoosa-Edwards Paper Company and the Consolidated Water Power and Paper Company. Another nursery conducted by the Nekoosa-Edwards company near Bear Lake in Ashland County, was recently sold to the government, partly because of the ravages by rabbits, according to F. G. Kilp, chief forester of the company.

Harold E. Wright, Appleton, Wis., has been granted a United States patent on a mulch fertilizer paper. It is a moisture-retaining, substantially impervious paper provided with a coating of nitrogenous nature, mixed with soil corrective chemicals. Five points of originalty were approved. The manufacturing rights have been assigned to a Menasha concern whose name was not divulged.

The Wisconsin Public Service Commission will hold a hearing May 11 on the application of the Dells and Northwestern Road, recently incorporated, to build five miles of line from Spur to Drydon Creek Junction, in Ashland County, Wis. It will be used as a logging road for timber operations of the Dells Pulp and Paper Company, which retained the timber lands when its mills were sold to the Sterling Paper Company. The road will connect with the Soo Line.

E. A. Schmalz, production manager of the Thilmany Pulp and Paper Company, Kaukauna, Wis., has been elected president of the vocational school board of that city.

Demand for Paper Improving in Chicago

Fine Paper Market More Buoyant—Bonds and Ledgers Firm, With Sulphite Bond Grades Holding Up Well—Book Papers Sharing General Betterment—News print Paper Situation Clearer—Kraft Wrapping Papers Steady

[FROM OUR REGULAR CORRESPONDENT]

CHICAGO, Ill., April 27, 1936—The local paper industry gives indication of satisfactorily overcoming the after-Easter lull in business as Chicago representatives report a run of inquiries for the past six days. The fine paper market gave signs of perhaps the most noticeable improvement as bonds and ledgers were reported firm with sulphite bond grades holding up well. Book papers had a good week despite the consistent efforts of the consumer trade to bring about some revisions in the lower grades. Covers were reported firm. Newsprint again felt encouraged as leading advertising journals gave out information indicating increased use of advertising lineage and as reports from all parts of the producing zones showed a tendency toward more firm prices. Groundwoods also continued to stay in the "satisfactory" class. Krafts remained about the same as last week with the undertone reflecting the position of kraft mills. The board market, earlier hampered by cold weather, floods, etc., gave evidence of making a better record during the second quarter of the year. Waste papers were slow with mixed and news in the least satisfactory spot.

Air Conditioning Paper Warehouses

Air conditioning as a distinctly forward step in the construction of warehouses for the storage of paper is prophesied by G. A. Bryant, vice-president of the Austin Company, Chicago industrial engineers, as one of the foremost developments of the near future. He points to demands by the users of paper and pulp products for materials properly conditioned for use in processing and printing as the stimulus for construction with well air-conditioned storage space in mind. The Austin official says that the past twelve months have seen a number of new paper storage warehouses designed with air conditioning features and adds that competition for business is bound to result in an extension of air-conditioning among producers of stock. Mr. Bryant also points out that improvement and progress in color printing and growing use of offset work necessitates a uniformity of stock which can only be secured by storage space with perfect temperature and humidity control. Thus, says Mr. Bryant, paper storage and printing warehouses may become among the first to completely enter the air conditioning field.

Dr. Herty and G. F. Hardy to Address Conference

Largely because of the continued interest in the possible use of agricultural by-products in the making of paper and paper products and/or substitutes for wood pulp as raw material, Illinois executives are closely watching the developments arising from the second Dearborn Conference of Agriculture, Industry and Science to be held at Dearborn, Michigan, May 12, 13 and 14. Inasmuch as Illinois is an important agricultural State and the State which first tried out the making of paper from cornstalk pulp, the sessions are certain to be of some bearing on the industry. The only representatives of the paper industry listed on the program issued locally are Dr. Charles H. Herty, of the Pulp and Paper Laboratory of the Industrial Committee, Savannah, Georgia, chairman of the division on "Cellulose," and George F. Hardy, consulting engineer of the Union Bag and Paper Company. The purpose of the conference is "to advance the industrial use of American Farm Products Through Applied Science."

News of the Industry

Of more than ordinary importance to local and Illinois shippers is the announcement that a monthly motorship service from Chicago to Lake Michigan and New York and Atlantic seaports has been arranged for by the Erie and St. Lawrence Corporation. One sailing a month will be followed while the service is being introduced here. Water Routes, Inc., 221 North LaSalle street, will serve as the western agents for Erie and St. Lawrence. The arrangement provides even better service and possibilities for shippers within easy access of the Illinois waterway route.

From the Chicago offices of the Carew Manufacturing Company at 111 West Washington street, comes notification of the appointment of E. B. Sheaffer as sales representative in the Middle Western territory covered by the headquarters in the Conway Building. The section served will extend south into Louisiana; north to Minnesota and east to Pittsburgh. Also reported is the appointment of J. Norman McDowell as sales manager of the company, which is a well known manufacturer of rag bond and ledger papers with mills in Massachusetts.

A new member of the Beckett Offset line, Chateau Finish, has been receiving a great deal of attention in Chicago offices. Made by the Beckett Paper Company, the Chateau Finish line will come in white and six colors and in platen and embossed as well as regular wove finishes.

Another addition to lines being pushed locally is that of Adirondack Bond of the International Paper Company portfolio. The new paper is described as giving "expensive performance at a lower price."

R. J. Paramore, controller of the Central Fibre Products Company of Quincy, Ill., was recently elected a member of the executive committee of the Illinois Manufacturers Cost Association. Mr. Paramore, widely known in the boxboard field, will serve a term of three years for the organization that gives careful study to all matters affecting the financial welfare of industries in this State.

The Swigart Paper Company has added Highway Bond, Bay Path Bond and Strathmore Deed to complete its coverage of Strathmore papers. All Strathmore Bond Papers and envelopes are now carried by the Chicago distributor with the above numbers being exclusively Swigart as well as Alexandria, Replica and Multicopy, Strathmore Parchment, Wornonoco and Strathopaque.

An important downstate Illinois paper distributor, the Peoria Paper House, Inc., of Peoria, Ill., has recently been appointed Caslon distributor for the Central Illinois area, according to the Munising Paper Company. The Peoria concern will carry a complete stock of Caslon Bond, Ledger and Mimeograph in white and colors.

Munising has also recently presented sixteen specimen business forms bound together in a portfolio "Printed Forms That Work For You." The portfolio is being distributed from the Caslon Sales Bureau in the Field Building in Chicago and puts emphasis on the improved appearance made possible by organization of material and selection of typography. The portfolio also includes a swatch illustrating the twelve colors of Caslon Bond.

Paper Demand Moderately Active in Boston

Manufacturers Continue Comfortably Busy—Wrapping Paper Quotations Stiffen, With More Business Resulting—Box Board Market Rather Spotty—Paper Stock Section Quiet to Fair—New Domestic Rags Are Steady

[FROM OUR REGULAR CORRESPONDENT]

BOSTON, Mass., April 27, 1936—Activity in the wholesale paper division of the paper industry here continued moderately good last week. Reports in the trade intimate that paper mills remained very comfortably busy, as they have been for the last two months. Prices of wrapping paper have stiffened, with more business resulting. The box board market was fair, but rather spotty.

Paper stock was quiet to fair, as a whole. Old papers moved fairly well, with prices unchanged. Bagging continued easier generally, a number of grades showing a decline, although foreign manila rope advanced to 2.35 @ 2.45 from 2.25 @ 2.35 and domestic manila rope to 2.35 @ 2.45 from 2.25 @ 2.35. Foreign gunny No. 1 receded to 2.00 to @ 2.10 from 2.05 @ 2.15, domestic manila rope to 1.85 @ 1.95 from 1.90 @ 2.00, Australian wool pouches to 2.30 @ 2.60 from 2.50 @ 2.75, and heavy baling bagging to 1.85 @ 1.95 from 2.00 @ 2.25. New domestic rags were steady as a rule, although new white shirt cuttings No. 1 declined to .07¾ @ .08 from .08 @ .08¼ and blue cheviots advanced at 5.50 @ 6.00 from 5.25 @ 5.50. Old domestic rags continued steady at the same levels. In foreign rags dark cottons advanced to 1.95 @ 2.05 from 1.75 @ 1.85 and old linsey garments to 2.10 @ 2.25 from 2.00 @ 2.10.

Twine was comparatively quiet.

News of the Industry

At a recent sales meeting of Knight, Allen & Clark, Inc., Ralph L. Day, of the American Writing Paper Company, spoke in regard to the new Herculean Cover sample books, which will be issued shortly. The special feature of these books is the color specifier, a section which shows each color of Herculean Cover printed with four varying color combinations. Mr. Day mentioned also other sales helps which will be ready in the near future.

John Carter & Co., Inc., are mailing to printers and stationers samples of Eagle-A Weddings in anticipation of the May-June rush.

The John Carter Company has added Tufwhite, a new Bristol, manufactured by the Riegel Paper Corporation, Milford and Riegelsville, N. J., to their items, to be stocked at their Boston and Hartford, Conn., warehouses. The sample books demonstrate the desirable printing surface and the use of half-tone reproduction.

The Marvellum Company, manufacturers of "papers distinctive" at Holyoke, Mass., of whom Henry L. Goodman, Boston, is a New England representative, has issued four new books of very attractive box coverings. Book No. A-2 contains Pintex Cretonne Papers in ivory, spring green, pink, powder blue, primrose, lilac, jade green, cadet blue, coral, violet, emerald, coffee and carmine. Book No. A-3 includes Beau-Ray Papers with a general silver effect on which is black, yellow, green, red and blue, respectively. Book A-5 contains two swatches of Rayon Papers. One, in Corona Pattern, shows white, peach, green, lavender, light buff, Nile green, pink, yellow, turquoise, magenta, orange, scarlet and dark blue. The other swatch, in grape design, shows the same colors, with the exceptions that light blue, and green are added and light green, turquoise and orange omitted. Book No. A-6, of Square-Tex Cretonne Papers, includes ivory, powder blue, primrose, pink, spring green, coral, jade green, violet, French gray, emerald, coffee and carmine.

The outing of the Boston Paper Trade Association is to be held June 8 at the Charles River Country Club, with a program of sports, golf, buffet luncheon and dinner.

Gordon E. Emerson, treasurer of Butterworth & Co., Inc., paper stock dealers, has returned from a trip to New York, New Jersey and Pennsylvania points.

Howard Walters, one of the junior salesmen for John Carter & Co., Inc., and Miss Evelyn Gertrude Parry were married April 24.

Charles J. Sawyer, of Hudson, Mass., president of the Natick Box and Board Company, Natick, Mass., will leave soon for a fishing trip to Rangeley Lakes, Maine.

Leon M. Poore, sales manager for John Carter & Co., Inc., has returned from a two weeks' trip to Bermuda, accompanied by Mrs. Poore and a party of friends.

W. T. Libby, with headquarters in New York City, representative of the Claremont Paper Company, Inc., called on the Boston trade last week.

L. P. Fortier Is New Everett Superintendent

EVERETT, Wash., April 17, 1936—W. J. Pilz, vice-president and general manager of the Everett Pulp and Paper Company of Everett, recently announced the appointment of L. P. Fortier as superintendent. Mr. Fortier assumed his new duties the middle of April, and he comes to the Pacific Coast with a record of accomplishment in the paper industry of the Middle West and East.

Mr. Fortier succeeds James G. Ramsey, who passed away suddenly on February 13, after nearly three years as superintendent of the Everett Pulp and Paper Company's mill.

A practical paper maker since 1910, Mr. Fortier brings to Everett a wealth of experience in the manufacture of high grade papers, particularly in the making of book papers, the principal product of the Everett Pulp and Paper Company.

In 1910, Mr. Fortier started as a paper maker with the Orono Pulp and Paper Company at Orono, Maine, and later worked for the Eastern Manufacturing Company of Brewer, Maine, and the American Writing Paper Company at Holyoke, Mass., both makers of fine papers.

Then followed a period of fifteen months' service in the United States Army during the World War. Upon his discharge from the army, Mr. Fortier became superintendent of the Groveton Mills of the Brompton Pulp and Paper Company, at Groveton, N. H., where he remained for four years. From Groveton Mr. Fortier moved to Kalamazoo, Mich., to become associated with the Bryant Paper Company, makers of book papers. After three years with Bryant he became general superintendent for the Michigan Paper Company of Plainwell, Mich., makers of book and specialty papers, leaving there after eight years of service to become superintendent for the Everett Pulp and Paper Company at Everett.

Mr. Fortier's family will accompany him to their new home in Everett.

Outlook for Paper Bright in Philadelphia

Indications from Recent Appraisal of Prospective Trends Point to Well Sustained Volume of Trading in Various Standard Grades of Paper at Prevailing Levels—Garrett-Buchanan Company Enlarges Twine Department

[FROM OUR REGULAR CORRESPONDENT]

PHILADELPHIA, Pa., April 27, 1936—From a recent appraisal of prospective trends in the paper trade in this area, all indications point to well sustained volume at present levels unless a cross current, unforeseen at this writing, sets in.

Paper and Bag Banquet Planned

The Paper and Bag Jobbers' Association of Philadelphia has completed plans for its banquet to be held at the Broadwood Hotel on May 6 at 7 o'clock in the evening. Upwards of two hundred reservations have been made from all over the country. President Harry Shapiro, of the Star Paper Company, Chester, has appointed James J. Gallen, of Gallen Paper Company, chairman of the Banquet Committee. Frank Dubin, of Dubin Paper Company and Sam Zacher, of Atlas Paper Company, are co-chairmen of the Entertainment Committee, while W. J. Cairns, of Cairns Paper Company, and Mike Scheff of Empire Company, comprise the Reception Committee.

News of the Industry

Another mailing piece in the envelope campaign being conducted by Whiting-Patterson Company, Inc., 320 North Thirteenth street, has just been sent out. This is printed on cream cloud waste weave—plate finish—substance 80—and the reading matter consists of a letter addressed to R. W. Fishburn of the above company, which was so heartily approved that it is passed along with the hope that the sentiments contained in it will also be approved by those fortunate enough to receive a copy. It reads as follows:

"This Country is so close to prosperity that I am asking your cooperation in a simple plan to accomplish the final push. Just this—don't participate in any transaction,—either selling or buying,—that isn't profitable to all parties concerned.

"Just as the laborer is worthy of his hire, so your goods or services merit you a profit in their sale. If you sell at a loss you are untrue not only to yourself, your employees and your firm, but also to every other man, woman and child in the U. S. A. If you really enjoy starvation wages, unemployment, red ink, and all other depression headaches, go after a volume of business at a loss. You simply start a wave of depression, spreading this loss in every direction until it comes back to you,—and how it grows!

"The same economic principle applies to your buying. Buy at a loss to your supplier, thinking you have made a smart bargain, and that loss is bound to reduce purchasing power for your own goods or services. To beat down some weak-kneed, spineless salesman, using the tricks common in buying practice, isn't smart at all,—it's just dumb and shortsighted. More than any other single factor, this is the reason for depressed business.

"Don't let any knit-wits kid you into believing that all industries are over-equipped and over producing. That's the bunk. There isn't one of us who couldn't use more of everything from neckties to steam yachts and suspension bridges. All we need is the money. So if you want to sell more of your product follow this plan and employment, wages, buying power and your own business will increase and red ink will become a drug on the market. Remember it's the speed with which money circulates that makes for prosperity and that speed can only be increased by profits and confidence. Profits restore confidence, stimulate demand, increased production and multiply faster than the well-known rabbit family.

"All this is merely common sense. We're all in the same boat. You don't want business at a loss and neither does the other fellow. We tried Associations, Codes and Price Control. Now let's try common sense backed up by plenty of intestinal stamina!"

Garrett-Buchanan Company is now stocking a complete line of all sizes, colors and weights of the American Writing Herculean covers in addition to their other lines of cover papers.

Mae Hillyer, who was formerly in business for herself on North 5th street, has been appointed to take charge of the enlarged twine department at Garrett-Buchanan Company. A. L. Bennett, formerly with C. Moore; and Paul Gallagher, formerly with the D. L. Ward Paper Company, will be associated with Miss Hillyer. This Twine Department, which is associated with the largest mills in the industry, is well equipped to handle standard twine and textile specialties.

Morgan H. Thomas, president of Garrett-Buchanan Company, is registered at the DuPont Hotel, with approximately 300 other members representing the vanguard of the more than 1000 Rotarians and their wives from three states who are in attendance on the two-day conference of the fiftieth district of Rotary International.

John O'Neill, of Patrick O'Neill & Co., 408 South 6th street, is back at his desk after a 10-day trip to Bermuda.

Pfaltz & Bauer To Move

The well-known importing firm of Pfaltz & Bauer, Inc., which has been at 300 Pearl street, New York City, for the past 36 years, have found it necessary to acquire additional new quarters on the thirtieth floor of the Empire State Building, in order to provide adequate facilities for many new activities.

Pfaltz & Bauer have dealt in fine and industrial chemicals, specialties for the cosmetic industry, etc., since their organization in 1900, but they have recently added many new lines of instruments such as analytical balances, microscopes photoelectric apparatus and other types of laboratory equipment. The general offices and show-rooms will be in the Empire State Building, and the downtown warehouses at 300 Pearl street and 12 Peck Slip will also be retained.

Beginning May 1, when they take possession of the new quarters, a permanent display of scientific instruments will be set up, and visitors will be cordially welcomed to inspect the various types of apparatus and to see a demonstration of their applications. Many new and unique instruments will be exhibited and anyone who is interested in scientific research will find a visit to the new showroom very beneficial.

Delaware Valley TAPPI Discusses Machinery

The Delaware Valley Section of the Technical Association of the Pulp and Paper Industry met at the Engineers Club, Philadelphia, Pa., on Friday evening, April 24 at 6:30 P.M. Harvey P. Cannon of the Container Corporation of America presided as chairman.

Election of Officers

The following officers were elected for the ensuing year: Chairman, H. C. Schwalbe, Dill & Collins, Inc., Philadelphia; Vice-chairman, J. d'A. Clark, Scott Paper Company, Chester, Pa.; Secretary-Treasurer, C. M. Connor, Glassine Paper Company, Conshohocken, Pa.; Executive Committee, H. P. Cannon, Container Corporation of America, and A. J. Luettgen, P. H. Glatfelter Company, Spring Grove, Pa.

Chairman Cannon appointed a special committee to prepare plans for the June social meeting of the section. This committee consists of R. M. Bates of the Thomas M. Royal Company, chairman; Valdemar Jacobsen, National Aniline and Chemical Company; and J. R. Atwater, Dill & Collins, Inc.

Harry Weston Reviews Developments

The speaker of the evening was Harry Weston, Editor of the *Paper Industry*, Chicago, Ill., who talked on "New Developments in Paper Mill Machinery." Mr. Weston reviewed the inventions and improvements that have been made during the past year for all operations from the wood preparation plant to the finishing room. This paper will be published soon in full in the PAPER TRADE JOURNAL.

Among those present were: R. E. Aiman, Norristown, Pa.; J. d'A. Clark, Scott Paper Company, Chester, Pa.; H. P. Cannon, Container Corporation of America, Manayunk, Pa.; H. C. Schwalbe, Dill & Collins, Inc., Philadelphia; E. J. Albert, Thwing-Albert Instrument Company, Philadelphia; C. C. Stewart, C. C. Stewart Paper Company, Philadelphia; A. M. Cooper, Westinghouse Electric and Manufacturing Company, Philadelphia; Leroy Benge, National Vulcanized Fibre Company, Yorklyn, Del.; H. H. Street, National Vulcanized Fibre Company, Yorklyn, Del.; J. C. Harper, Jr., West Jersey Paper Manufacturing Company, Camden, N. J.; V. Jacobsen, National Aniline and Chemical Company, Philadelphia; G. B. Martin, General Dyestuff Corporation, Philadelphia; W. M. Shoemaker, National Vulcanized Fibre Company, Yorklyn, Del.; C. E. Barba, Globar Corporation, Philadelphia; W. E. Brow, Container Corporation of America, Manayunk; T. B. McConnell, same company; C. W. Cassell, Congoleum-Nairn, Inc., Cedarhurst, Md.; J. Roslund, Moore & White Company, Philadelphia; A. W. Wickham, MacAndrews & Forbes Company, Camden, N. J.; R. M. Bates, Thomas M. Royal & Co., Philadelphia; J. E. Freemann, Lewis-Shephard Company, Philadelphia; Garrett F. Hom, Messinger Bearings, Inc., Philadelphia; R. G. Macdonald, Secretary of TAPPI, New York, N. Y.; H. E. Weston, *Paper Industry*, Chicago, Ill.; S. D. Reynolds, Container Corporation of America, Manayunk; M. Craig Maxwell, McDowell Paper Mills, Manayunk; C. F. Weitzel, Pennsylvania Salt Manufacturing Company, Philadelphia; C. W. Rivise, Patent Attorney, Philadelphia; L. F. Derr, Goulds Pumps, Inc., Philadelphia; C. S. Rankin, Continental-Diamond Fibre Company, Newark, Del; S. M. Dottrier, Lang Company, Gloucester, N. J.; F. J. McAndrews, McDowell Paper Mills, Manayunk; H. D. Childers, Thomas M. Royal & Co., Philadelphia; T. T. Curran, Sanitary Products Corporation, Philadelphia; W. C. Jay, same company; R. W. Shaffer, MacAndrews & Forbes Company, Camden, N. J.; H. E. Waugh, U. S. Rubber Products, Inc., Philadelphia; A. McInnes, Jr., Pusey & Jones Corporation, Wilmington, Del.; H. C. Waugh, American Water Softener Company, Philadelphia; S. M. Bratton, Pusey & Jones Corporation, Wilmington, Del.; J. R. Atwater, Dill & Collins, Inc., Philadelphia; Leslie Justice, Valley Forge Laboratories, W. Conshohocken, Pa.; J. H. Fritz, National Oil Products Company, Harrison, N. J.; John Macadam, National Vulcanized Fibre Company, Yorklyn, Del.

A. S. M. E. Graphic Arts Division Elects

The American Society of Mechanical Engineers has announced the election of officers of its Graphic Arts Division to fill out the balance of the year. The special election was necessitated by the death of the late chairman, E. P. Hulse, recently.

Burt D. Stevens, first vice-president of the Miehle Printing Press and Manufacturing Company, Chicago, Ill. was elected chairman; R. G. Macdonald, secretary-treasurer of the Technical Association of the Pulp and Paper Industry, New York, was elected vice-chairman; T. E. Dalton of the Hearst Magazines, Inc., secretary; and A. E. Giegengack, Public Printer of the United States was elected to the executive committee.

The division and its associated organization The Graphic Arts Research Bureau, will hold a three-day Graphic Arts Conference at the Wardman Park Hotel, Washington, D. C., on May 11 to 13, 1936. Other cooperating organizations are the Government Printing Office and the Washington Club of Printing House Craftsmen.

Everyone interested in technical progress in the graphic arts is cordially invited to attend this conference, irrespective of membership in any of the cooperating organizations. Discussion and questions from the audiences will be welcome and encouraged.

The session, beginning at 9:00 A.M., Monday, May 11, will be devoted to paper and ink. V. Winfield Challenger of N. W. Ayer & Sons, Inc., Philadelphia, will preside. An opening address will be made by the Hon. A. E. Giegengack, U. S. Public Printer. Arthur S. Allen, eminent color engineer of New York City, will talk on "Paper and Its Application of Printing;" Morris Kantrowitz, Technical Director of the Government Printing Office will discuss "Permanence and Durability of Printing Papers;" E. L. Duhring, Director of Research of the F. H. Levey Company, New York, will talk on "Quick Drying Inks;" W. J. Risley, Jr. of the Curtis Publishing Company, Philadelphia, will lead the discussion.

On Monday afternoon there will be a Metal Symposium dealing primarily with photoengraving practices. There will be an informal dinner on Monday evening, following which Dr. Vilhjalmur Stefansson, famous Arctic Explorer will give an amusing and informative talk on "The Standardization of Error."

On Tuesday, May 12, there will be a morning session on "Evaluation of Processes." This will deal with the application and evaluation of relief, lithography and gravure printing processes and in the afternoon a General Technical Session will consider management and new printing processes.

Wednesday will be devoted to visits to the Government Printing Office and the Bureau of Engraving and Printing.

Michigan Superintendents Meet at Kalamazoo

KALAMAZOO, Mich., April 27, 1936—The April meeting of the Michigan Division of the American Pulp and Paper Mills Superintendents' Association was held at the Park-American Hotel, Thursday evening, April 23, at 7:00 o'clock.

Printing on Boxboard

A good attendance was present, with dinner preceding the meeting. Chairman Otto Fischer in his opening remarks stated that the rule had been to obtain an outside speaker for the monthly meetings, but he was convinced that in so doing they had overlooked a considerable amount of local talent. To prove his point he announced that two local men would address them at this meeting: J. J. Murray, president and general manager of the Kalamazoo Label Company, and "Pat" Stephenson, sales manager of the Crescent Engraving Company. "Pat" was the first one up and his subject was "Printing on Boxboard," an address which outlined the intricacies of the engraver's art, making of plates, the use of them, in printing on different grades of board. In short, a very detailed and understandable address covering all phases of the subject which held the interest of the members to the end.

High Speed Printing on Thin Papers

Mr. Murray's talk followed, his subject being: "High Speed Printing on Thin Papers." In his opening remarks, he complimented the superintendents on the improved quality of paper which he had noted in the past five years. He also gently chided the paper mill executives for the too liberal allowances of claims arising from printers, for rejected paper, his contention being that a good share of the claims were the result of printing contracts being taken at a too low price to warrant a profit and in many cases the claims being entirely unjustified, but were made to shift the loss of profit onto the mill. His company, last November, completed a modern printing plant, completely air-conditioned and temperature-controlled throughout. In his talk which covered thoroughly the processes of printing, gumming and varnishing labels, he enumerated the advantages of temperature control in eliminating difficulties ordinarily encountered in printing plants not so equipped. He put particular stress on the matter of the paper manufacturers and the printer, when possible, getting together for the purpose of determining accurately the adaptability of papers to be used for any particular job in question. He was referring, of course, to big contracts of substantial tonnage.

At the close of Mr. Murray's talk, an open forum was held and both Mr. Stephenson and Mr. Murray answered innumerable questions put to them by the superintendents. Although, it was a most interesting and instructive meeting.

Plans for National Convention

F. L. Zellers, the general convention chairman, told the members present the progress his committees are making. Without a doubt the Grand Rapids Convention will surpass any previous one for both attendance and exhibits. Over 400 reservations have already been received and no cards sent out as yet. An effort will be made to have a joint meeting of paper manufacturers, printers and paper jobbers, during the national convention. Details and time will be furnished later.

A rising vote of thanks was tendered Messrs. Murray and Stephenson and adjournment declared.

Among those present were: "Pat" Stephenson, Crescent Engraving Company; J. J. Murray, Kalamazoo Label Company; Otto Fischer, Bryant Paper Company; Al Sherwood, Sutherland Paper Company; C. H. Noble, Staley Manufacturing Company; L. A. Willoughby, Bryant Paper Company; Arthur Cole, Rex Paper Company; H. E. Stratton, PAPER TRADE JOURNAL; Alex W. Macvie, Paper Makers Importing Company; P. W. Bartholomew, Paper Makers Chemical Corporation; J. A. Heenan, Sutherland Paper Company; Joseph E. Loughead; W. S. Taylor, American Cyanamid Corporation; Clem Sisson, Mac-Sim-Bar Paper Company; W. F. Wolfe, Mac-Sim-Bar Paper Company; C. B. Cushman, Mac-Sim-Bar Paper Company; H. F. Heller, Paper Makers Chemical Corporation; A. E. Hays, Michigan Paper Company; Paul de Guehery, Michigan Paper Company; Arnold Weller, Sutherland Paper Company; Glen Sutton, Sutherland Paper Company; Willard Barnhard, American Box Board Company; Wm. Costello, Jos. E. Loughead Company; Harry C. Pearson, Pioneer Paper Stock Company; Harry C. Bradford, Rex Paper Company; Dwight L. Stocker, Michigan Paper Company; James A. Wise, Kalamazoo Paper Company; W. K. Child, Clinton Company; Mike Redmond, Kalamazoo Paper Company; Dan Stacy, American Boxboard Company; Roy Zellers, French Paper Company; Norman J. Cowie, Hawthorne Paper Company; Homer E. Stafford, Hawthorne Paper Company.

Group Meetings at Grand Rapids

F. L. Zellers, general chairman of the Seventeenth Annual Convention of the American Pulp and Paper Mill Superintendents Association reports the chairmen of the group meetings are completing their programs.

The convention will be held June 24, 25 and 26 at the Hotel Pantlind, Grand Rapids, Mich., in conjunction with a Pulp and Paper Mill Equipment and Process Exposition in the Civic Auditorium, adjoining the hotel.

John H. Brougham, who is chairman of the board group meeting, has announced the following program:

"Paper Machine Rolls From a Rubber Man's Viewpoint," (Illustrated) by W. L. White, director of research, Manhattan Rubber Division of Raybestos, Inc.

"Dealing With Mill Operating Records on Stock Preparation and Production," by R. D. Kehoe, President of Paper and Industrial Appliances, Inc.

"Modernized Board Machines," by Cliff Walton, engineer of Downingtown Manufacturing Company, who will also present a series of motion pictures to illustrate his talk.

S. E. Tomczak, chairman of the Sulphite Pulp Group, has announced the following program:

"New Developments in Bleaching Sulphite Pulp," by Dr. T. A. Pascoe, Northwest Paper Company, Cloquet, Minn.

"Waste Sulphite Liquor," by Guy C. Howard, Marathon Paper Mills, Rothschild, Wis.

"Continuous Cooking of Sulphite Pulp," by H. D. Wells, American Paper Machinery and Engineering Works, Glens Falls, N. Y.

C. E. Stoke, who is chairman of the Sulphate and Soda Pulp Group, has announced that R. M. Radsch of the Appleton Machine Company, Appleton, Wis., who was formerly superintendent of the Thilmany Pulp and Paper Company, will present a paper on "Modern Trends in Kraft Pulp and Paper."

Obituary

Wm. E. Van Horne

[FROM OUR REGULAR CORRESPONDENT]

DAYTON, Ohio, April 27, 1936—Death claimed William E. Van Horne, purchasing agent for the Champion Paper and Fibre Company, Hamilton, in Mercy Hospital, that city, on the morning of April 21, following a protracted illness. Death was due to angina pectoris, from which he had suffered since last May.

Although he had never completely recovered from this illness from the time he was first stricken, he was able to be up and about. Last September in an effort to regain his health he went to Michigan, where he suffered a second attack. At Christmas time he suffered a third attack and two weeks ago his condition became so apprehensive that he was removed to the hospital.

Mr. Van Horne was a member of a pioneer Miami Valley family. He was the son of the late William Schenck and Flora Maxwell Van Horne and was born November 6, 1882, in Franklin. At the time of his death he was 53 years of age. He was the grandson of William Schenck, founder of the town of Franklin, for many years one of the busiest paper mill centers in Ohio, and he passed his boyhood and early manhood in the village founded by his distinguished grandfather.

Following his graduation from the Franklin High School, Mr. Van Horne attended Denison University at Granville, Ohio, and later took up the study of law at Ohio State University. On August 1, 1910, however, he gave up his studies to become associated with the purchasing department of the Champion Coated Paper Company, now the Champion Paper and Fibre Company.

He rose rapidly in the employ of the paper concern and for the past 25 years had been the purchasing agent of this large corporation, a post which he filled with credit. His ability was recognized as being unusual and he gave unlimited time and effort to his duties.

Mr. Van Horne was married April 6, 1907, to Miss Margaret Stevenson, daughter of Mr. and Mrs. William Stevenson, member of one of Hamilton's pioneer families. To this union was born one son, William Earl Van Horne, Jr., now twelve years of age. In his home life, in business and in civic and social circles Mr. Van Horne displayed a personality so embued with kindness and sincerity that he won a host of friends to whom his death brings genuine sorrow. He was a member of the Hamilton Lodge No. 93, Benevolent and Protective Order of Elks and the Butler County Country Club, later the Elks Club. When in college he was a member of the football teams of both Denison and Ohio State University, and always manifested keen interest in athletics.

Surviving Mr. Van Horne are the widow, Margaret Stevenson Van Horne; one son, William Earl; three brothers, Thomas Bud Van Horne of Rosario, Argentina, South America; Robert Van Horne, of Franklin, and Fran Van Horne, of New York; and one sister, Mrs. Helen Williamson of Franklin.

Funeral services were conducted from the Van Horne home, 214 Park Avenue, Thursday afternoon at 2:30 o'clock, with Dr. George B. Parkin, pastor of the First Methodist Episcopal Church, officiating. Interment was made in Greenwood cemetery.

The Hamilton Lodge of Elks conducted services at the residence at 8 o'clock Wednesday night.

George H. Crocker

BOSTON, Mass., April 27, 1936—George H. Crocker, aged 82, of 1 Waterhouse street, Cambridge, Mass., for many years an official of the Crocker, Burbank & Co. Association, Fitchburg, Mass., until his retirement several years ago, died April 25 at his home, following a week's illness.

Born in Fitchburg, December 16, 1853, he attended the local schools and took special courses at the Massachusetts Institute of Technology, after which he became associated with the paper concern which bore his name.

He was at one time tennis champion of Worcester County and a leading golfer of this section, having been a member of the Massachusetts state team. He was a member of many golf clubs, including the Brookline Country Club.

Besides his widow, Helen (Weymouth) Crocker of Cambridge, he is survived by a daughter, Mrs. Margaret C. Addison of Cambridge; three sons, Frank W. Crocker of Westwood, Samuel E. M. Crocker of New York City and George H. Crocker, Jr. of Chestnut Hill; and twelve grandchildren.

Funeral services were held at Christ Church, Cambridge, April 28, at 2 p.m. Cremation was in Mt. Auburn Crematory Chapel.

Chas. W. Perry

Chas. W. Perry, chemist at the Esleeck Manufacturing Company, Turner Falls, Mass., who died recently, was born January 27, 1903 in San Francisco. He received his A. B. degree from Hamilton College in 1925. Immediately after that he went to the Esleeck Manufacturing Company where he remained until the time of his death. Mr. Perry was a member of the Technical Association of the Pulp and Paper Industry since 1925.

F. H. Glanville Leaves Crocker-McElwain

[FROM OUR REGULAR CORRESPONDENT]

HOLYOKE, Mass., April 28, 1936—Frederick H. Glanville has resigned as superintendent of the Crocker-McElwain Company after fifteen years' service with that company. Previous to that he was superintendent of the Beebe & Holbrook Division of the American Writing Paper Company, Inc., and for thirteen years before that superintendent of the Millers Falls Paper Company of Millers Falls. His family have been in the papermaking business for five generations beginning with his great-great-grandfather in England.

Mr. Glanville was born in Philadelphia and started in the paper making business from the bottom working first as beaterman, then promoted to machine tender, and finally to superintendent. His associates claim he can run any machine in a paper mill. He plans to take a month's vacation before taking another position.

Now Smith-Scharff Paper Co.

ST. LOUIS, Mo., April 27, 1936—The merger is announced of the Scharff Paper Company, a proprietorship, and the Mid-States Paper House, also a proprietorship, into a corporation to be known as the Smith-Scharff Paper Company.

This merger will strengthen the financial statement of both former companies considerably and greatly fortify the organization as a selling unit. Thus, the new concern will be in a position to buy in larger units as soon as the sales force begins to click. This is possible because in both former companies there was little duplication of merchandise handled.

Pending Legislation

Charles W. Boyce, executive secretary of the American Paper and Pulp Association, has notified all paper and pulp manufacturers, that individual letters, prepared by the Committee on Public Affairs calling attention to the effects upon the paper and pulp industry of the so-called Anti-Basing Point and the revised Anti-Chain store legislation now pending in the Congress, have been sent to the Representatives from all districts in which paper and pulp mills are located and to the Senators from papermaking states. The letter reads, in part, as follows:

"Enactment of the pending Wheeler Bill and the revised Patman Bill would make necessary far-reaching changes in methods of distribution of many important domestic products, among them the products of the paper and pulp industry.

"At meetings of members of the industry, some of whom are located in your Congressional District, this matter has been discussed thoroughly. I have been requested to ask your opinion as to the possibilities of the passage of these bills.

"Because of the vast number of grades of paper and the difference in the character of the same kinds manufactured by different producers, most manufacturers of paper distribute their product nationally. In order that consumers may be kept informed as to competitive prices, the industry has found it necessary to quote delivered prices.

"The proposed legislation would make necessary the complete elimination of the delivered price system and the substitution therefore of an f.o.b. mill price base. In view of the fact that producers are located primarily where timber and water power resources are available, or where water-borne pulp shipments are possible, and the competition, on the other hand, is located chiefly in a few large marketing areas, the substitution of the f.o.b. mill price base would result in widespread confusion in this industry. Moreover, it might lead to a series of local monopolies based upon freight rate differentials.

"The finished products of the paper and pulp industry are the raw materials of many other industries such as publishing, container manufacture and paper products, which are themselves in national competition. For competitive reasons these manufacturers have demanded delivered prices on their raw materials. An uneven price base and especially the very possible creation of local monopolies would obviously have far-reaching effects upon these industries.

"May I have, for transmittal to the members of our industry that are located in your Congressional District, your opinion in respect to the effect of this legislation and your opinion as to whether it will be enacted at the present session of the Congress?"

E. J. McDonnell Made Vice President

[FROM OUR REGULAR CORRESPONDENT]

HOLYOKE, Mass., April 28, 1936—Word has been received here of the appointment of Edward J. McDonnell as vice-president in charge of manufacturing at the mills of the Fitchburg Paper Company of Fitchburg, Mass., effective May 1. The announcement was made by George Rodney Wallace, president of the company.

Mr. McDonnell was at one time superintendent of the Tileston & Hollingsworth Company's mill at Hyde Park and after that superintendent of one of the divisions of the American Writing Paper Company, Inc., in this city. From Holyoke, he went as general manager of the Groveton Paper Company of Groveton, N. H., and three years later, was appointed general superintendent of the Fitchburg Paper Company.

Cutting Costs With Liquid Caustic Soda

To operating men, executives, buyers and chemists at every plant where caustic soda is used, the announcement by the Mathieson Alkali Works of a new 72-page book entitled "Cutting Costs with Liquid Caustic Soda" will be welcome news.

As one of the pioneers in the distribution of liquid caustic soda, Mathieson is particularly well equipped to discuss this comparatively new industrial commodity. Their new book presents a thorough-going study of the economics of the "solid caustic vs. liquid caustic" question and gives much useful information on the handling of liquid caustic soda. Comprehensive technical data on sampling and analysis methods as well as on the properties of caustic soda and its aqueous solution add greatly to the value of the book as a handy reference manual.

The book is divided into four parts, the purpose and contents of which are well described in the Foreword: "The material presented in this book is intended to serve a four-fold purpose. For the plant executive interested in a possible change from solid to liquid caustic soda, Part I contains facts which may enable him to judge the benefits of such a change in his own plant.

"For the plant operating man, Part II provides useful information on approved methods for the unloading, handling and storage of liquid caustic, including materials and types of construction best adapted to this service. The technical man will find in part III comprehensive data on the properties of caustic soda and its aqueous solutions, including many useful tables and graphs, some of which are presented in an entirely new and more convenient form. Part IV gives up-to-date information on the sampling and analysis of caustic liquors which should prove helpful to the laboratory man."

The data contained in the book, it is stated, "are based upon the wide experience of Mathieson chemists and engineers and upon information gathered from authoritative reference sources." Pictures and charts have been used profusely to illustrate equipment and to present useful data in graphic form. Undoubtedly, "Cutting Costs with Liquid Caustic Soda" will prove valuable in effecting economies in the use of caustic soda by both present and potential consumers of liquid caustic. Anyone interested in liquid caustic soda may obtain a copy of the book by writing to The Mathieson Alkali Works (Inc.), 60 East 42nd street, New York, N. Y., on their business letterhead.

Paper Concerns in Ohio Get Patents

[FROM OUR REGULAR CORRESPONDENT]

DAYTON, Ohio, April 27, 1936—The Richardson Company, Lockland, Ohio, is assignee of Patent No. 2,037,269, one of the 695 patents issued the past week by the United States Patent Office.

Pending since April, 1931, the patent issued with four allowed claims for a molding process, the invention of Oliver O. Rieser, who is connected with the battery box plant of the Richardson Company at Melrose Park, Ill.

The Philip Carey Manufacturing Company of Lockland, also a widely-known manufacturing company, is assignee of Patent No. 2,037,507. Pending since 1928, only one claim was allowed covering weather-proof strips made of bituminous material with embossed surface areas and intervening depressions.

Herman L. Kutter was granted Patent No. 2,037,242 and No. 2,037,243, relating to improvements in paper-making machinery, both assigned to the Black-Clawson Company, manufacturers of paper-making machines in Hamilton.

CONSTRUCTION NEWS

A Summary of Vital Facts Regarding Construction, Finances and Operation of Paper Mills

Construction News

Escanaba, Mich.—The Escanaba Paper Company, manufacturer of newsprint, etc., has approved plans for extensions and improvements in power plant, with installation of new 1850-kilowatt turbo-generator unit, with auxiliary equipment, new high-pressure boiler and other equipment. Entire project will cost about $150,000, and is scheduled for completion before the end of June. A. H. Wadewitz is chief engineer at mill.

Atlanta, Ga.—The Southern Tablet and Manufacturing Company, 141 Mangum street, manufacturer of writing pads, tablets, etc., has awarded general contract to C. A. Adair & Co., 73 West Peachtree place, N. W., for improvements in plant, for which work will be placed under way at once. No estimate of cost announced.

Hinsdale, N. H.—The Hinsdale Paper Manufacturing Company, manufacturer of tissue and other paper stocks, has awarded general contract to the J. W. Bishop Company, 109 Foster street, Worcester, Mass., for proposed rebuilding of mill, destroyed by fire a number of months ago, previously referred to in these columns. New structure will be three-story, 80 x 200 feet, and is reported to cost over $125,000, with machinery. New paper-making equipment will be installed. Miscellaneous awards for electrical, heating and plumbing work will be made at early date. Work is scheduled to begin at once. McClintock & Craig, 458 Bridge street, Springfield, Mass., are consulting engineers. Louis N. Stearns, treasurer and general manager, is in charge.

Indianapolis, Ind.—The Samson Paper Company, 546 South Meridian street, wholesale paper products, has leased space in local building at 333 West Walnut street, totaling about 12,000 square feet of floor area, and will occupy for expansion, including storage and distributing facilities.

Kalamazoo, Mich.—In connection with acquisition of the former local plant of the D'Arcy Spring Works by the Sutherland Paper Company, manufacturer of boxboard products, etc., lately noted in these columns, over 70,000 square feet of floor space will be added to the paper mill property, providing for large expansion in operations. An extensive remodeling and improvement program will be carried out at once, with installation of equipment. It is proposed to have the new unit ready for service early in the summer. L. W. Sutherland is president.

Holyoke, Mass.—The American Writing Paper Company, Main street, is planning immediate improvements to mill buildings on the Connecticut River, recently damaged by flood waters. Foundations and walls will be rebuilt and reinforced, and wrecked machinery replaced with new equipment. Entire project is reported to cost over $75,000, including machinery.

Troy, N. Y.—Fire recently damaged a portion of mill of the John A. Manning Paper Company, Inc., Cypress street. An official estimate of loss has not been announced. The damage will be replaced at once.

Neenah, Wis.—The Kimberly-Clark Corporation, North Commercial street, has purchased additional property in vicinity of mill for proposed future expansion. No plans as yet have been prepared for new building and actual construction, it is said, will be deferred until a later date.

Oakland, Cal.—The Owens-Illinois Pacific Coast Company, 85 Second street, an Francisco, Cal., manufacturer of glass containers, bottles, etc., plans establishment of a large plant unit for the production of corrugated paper boxes and containers for shipping service in connection with new plant on 22-acre tract of land on Fruitvale avenue at the Estuary, Oakland. Complete equipment will be installed for this division. Entire project will comprise a group of four main buildings, estimated to cost close to $2,000,000, with machinery. Work will begin at early date. Kaj Theill, 580 Market street, is structural engineer. P. B. Burtt is vice-president, in charge. Company is a subsidiary of the Owens-Illinois Glass Company, Ohio Building, Toledo, Ohio.

Indianapolis, Ind.—The Lily Tulip Cup and Specialty Company, 1032 North Illinois street, manufacturer of paper cups and kindred products, has leased space in building at 20 South Senate avenue, and will occupy for expansion in storage and distributing division. Main offices of company are at 317 North Wells street, Chicago, Ill.

Livermore Falls, Me.—The International Paper Company has resumed operations on a curtailed basis at local mill, following suspension of production due to damage to plant caused by recent flood waters. Improvements will be carried out in connection with reconstruction of damaged sections, now in progress. Mill of the Continental Paper and Bag Corporation at Rumford, Me., was similarly affected by the flood, and improvements will likewise be carried out at this mill, a subsidiary interest of the first noted company. Plant of the Continental company at York Haven, Pa., was considerably damaged by flood and rebuilding and improvements are now in progress at this mill. No official estimate of cost at the different plants has been made. Company headquarters are at 220 East 42nd street, New York, N. Y.

Hamilton, Ohio—The Beckett Paper Company, manufacturer of bond and other writing paper stocks, has closed bids on general contract for proposed new power plant at mill, previously referred to in these columns, and will begin work at early date. Two new high-pressure boiler units and auxiliary equipment will be installed, coal and ash-handling machinery, feedwater heater and other equipment. New station is estimated to cost in excess of $200,

000, Fosdick & Hilmer, Union Trust Building, Cincinnati, Ohio, are consulting engineers.

Toronto, Ont.—The Don Valley Paper Company, Ltd., 74 University avenue, manufacturer of commercial paper stocks, envelopes and other paper products, has approved plans for new one-story addition to mill on Don Valley road, Todmorden, near Toronto, and will proceed with superstructure at once. It will be used primarily for storage and distributing service, and is estimated to cost close to $25,000, with equipment.

New Companies

Milwaukee, Wis.—The Economy Paper Products Company has been incorporated to manufacture and deal in paper goods of various kinds. The incorporators include Leo Mann and Maxwell H. Herriott, 710 North Plankinton avenue, Milwaukee.

Watertown, N. Y.—Robert E. Read, Inc., has been chartered with capital of 4000 shares of stock, no par value, to manufacture and deal in paper products of various kinds. Principal incorporators are Robert E. Read and Leon E. Harter, Watertown.

Wilmington, Del.—The Wilmington Wall Paper Company has been chartered with capital of 100 shares of stock, no par value, to deal in wall papers, etc. New company will take over and succeed to organization of same name with local headquarters at 2314 Market street.

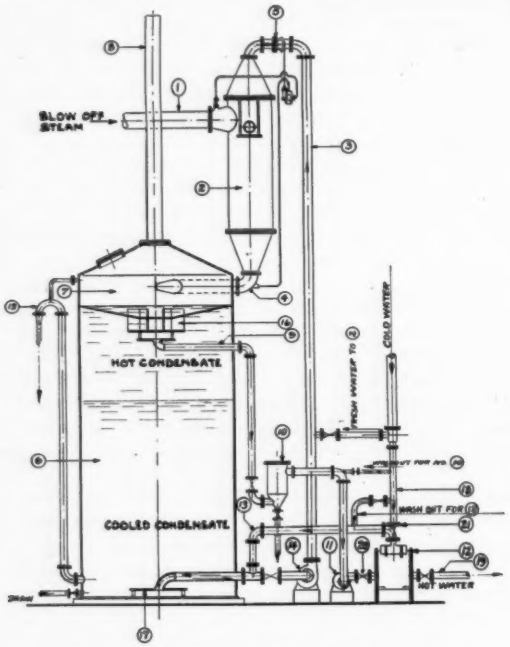
Parsons & Whittemore Sue J. E. Gefaell

[FROM OUR REGULAR CORRESPONDENT]

TORONTO, Ont., April 27, 1936—Parsons & Whittemore, New York, has brought suit in Osgoode Hall, Toronto, against John E. Gefaell, promoter of the Great Lakes Paper Company deal for large newsprint orders of United States publishers. The plaintiff employed Mr. Gefaell as a sales agent. The claim of the plaintiff is that it is entitled to some share of commissions on sales of newsprint from the Great Lakes mill negotiated by John Gefaell. Upper Lakes Pulp and Paper Company, successor to Great Lakes Paper Company under the reorganization, is interested in the proceedings. Any settlement of the suit will determine to whom the United Lakes firm is to pay commissions. The plaintiff is endeavoring to enjoin the National Trust Company as receiver for Great Lakes Paper Company as a defendant in the action. The origin of the suit goes back to 1931, when the National Trust Company hired Parsons & Whittemore to sell newsprint for the Great Lakes Paper Company. The National Trust Company had been appointed receiver for Great Lakes Paper Company and required a sales agent. Parsons & Whittemore were hired for this purpose. John Gefaell was connected with Parsons & Whittemore at that time.

Rosenblad Blow-off Condenser Plant

Hitherto, surface condensers have been in common use for the condensing of the blow-off steam and the production of hot water for washing the pulp in the diffusers and other purposes at sulphate mills. In order to obtain a sufficiently high temperature of the water and to avoid vapor loss during the intermittent periods of maximum load, the heating surfaces of these surface condensers must be liberally dimensioned. In spite of their being made of acid-resisting material both scale and corrosion arise, necessitating periodic cleaning.



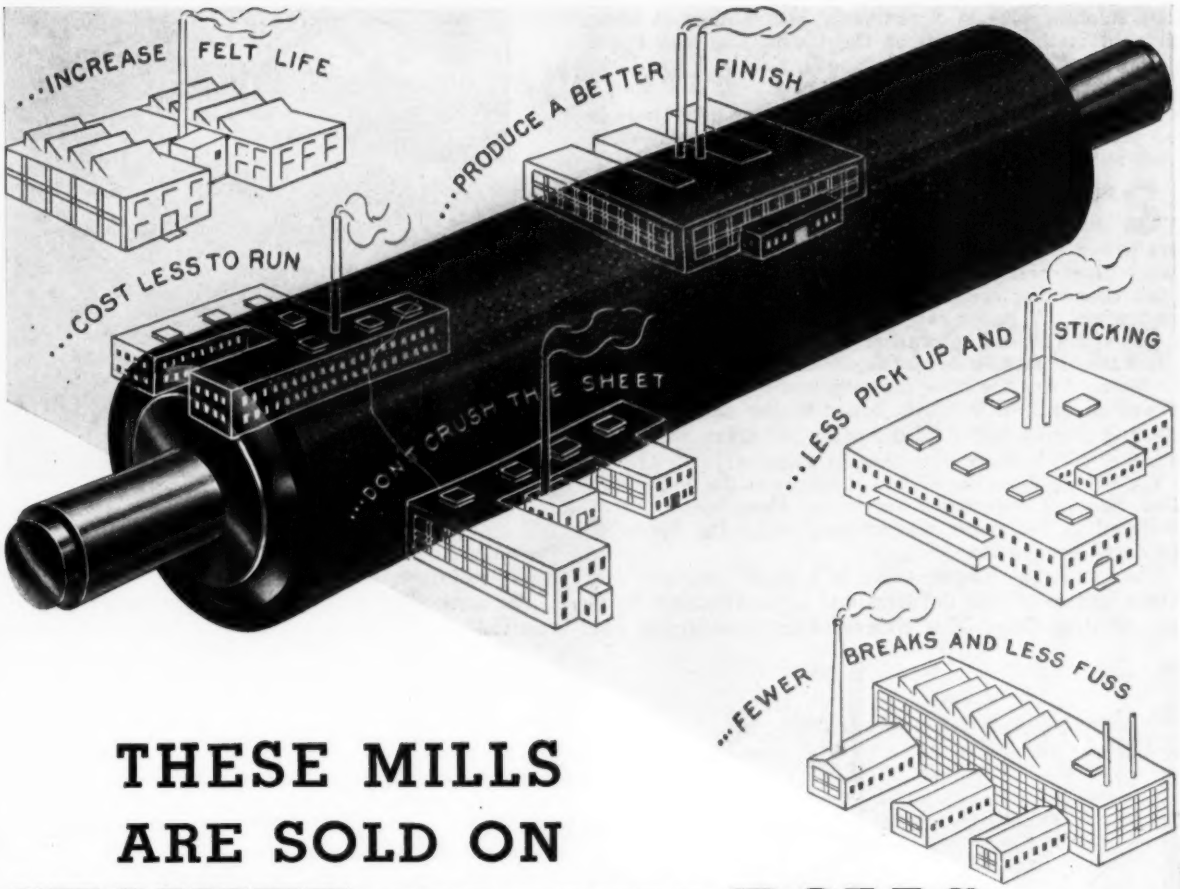
GENERAL ARRANGEMENT ROSENBLAD SYSTEM

To eliminate these drawbacks the new system of heat transfer by means of the patented spiral heat exchanger has been designed. The blow-off from the diffusers (pipe 1) is passed into a jet condenser (2), condensed by a condensate of about 105 degs. F. (pipe 3), the quantitative supply of condensate being automatically regulated (valve 5) in such manner that the mixing temperature at the outlet of the jet condenser (thermal element 4) amounts to about 195 degs. F. (hot condensate). This hot condensate is fed into a storage vessel (6), which is large enough to accommodate the quantity of condensate required at times of maximum load.

The central feature of the process is the production of hot water (inlet 18, outlet 19) in a spiral heat exchanger (12) by means of the hot condensate (inlet pipes 9, filter 10, pump 11, discharge pipe 13); in fact, a continuous process in which the condensate is cooled to 105 degs. F. cold condensate, some of which is stored in the same vessel (6) and some returned as cooling agent to the jet condenser (pump 14, pipe 3), it being possible to make use of one and the same vessel for the storage of the hot and cold condensates because these do not mix.

This heat recovery system in sulphate mills confers many advantages. In the first place, the blow-off vapor can be fully utilized even during the periods of maximum load, and this with a small jet condenser. The switching in of a storage vessel for the condensate enables a continuous process of water heating to be maintained by the spiral heat exchanger, which for the mean loads, moreover, may be small in size and cheaply constructed, not needing to be dimensioned to meet maximum loads. Wrought iron suffices as material for the spiral heater unless the fresh cooling water does not attack iron too badly.

This plant is operating in nineteen sulphate mills and


...INCREASE FELT LIFE
...PRODUCE A BETTER FINISH
...COST LESS TO RUN
...DON'T CRUSH THE SHEET
...LESS PICK UP AND STICKING
...FEWER BREAKS AND LESS FUSS

THESE MILLS ARE SOLD ON STONITE TOP PRESS ROLLS

Scores of mills now running STONITE top press rolls and smoothing rolls agree that they end some of the toughest press roll problems in paper making.

STONITE is a special patented composition developed by Stowe-Woodward. Applied to a metal roll body and ground by precision methods, it produces a hard, granite-like surface of fine grained texture that has low adhesion to paper and a high affinity for water. This means a quick release with less pick-up or sticking and fewer breaks. STONITE can be applied to light weight shells to reduce the total weight, prevent crushing the sheet and increase felt life. STONITE Rolls are in successful service on almost every grade of paper from tissue to board. They keep press roll costs down to the barest minimum. May we tell you more about them?

STOWE-WOODWARD, INC.

NEWTON UPPER FALLS • MASSACHUSETTS

NEW YORK OFFICE WOOLWORTH BUILDING

WHITE STAR Rubber Covered Rolls
STONITE Top Press and Smoothing Press Rolls
TANNITE Couch Rolls
All made by the COREWELD Process

four sulphite mills in Scandinavia, and a plant is being installed in the new mill of the Union Bag and Paper Corporation of Georgia, at Savannah, Ga., by Fibre Making Process, Inc., Chicago.

The spiral heat exchanger has also many other uses in the pulp mills, for instance, as turpentine condensers in kraft mills and relief coolers in sulphite mills.

A Modern Digester and Diffuser Room Layout

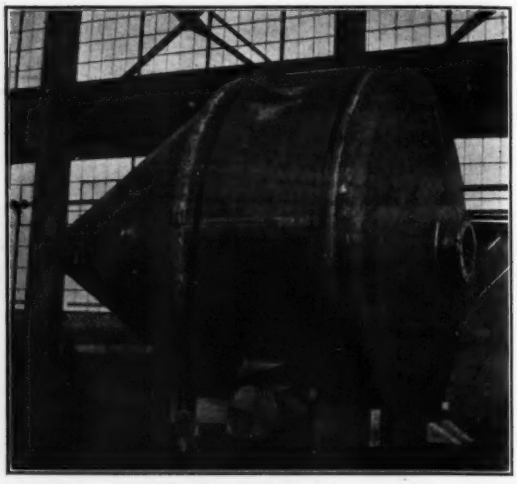
The Sandberg central valve connects the several digesters with a main blow line. The blow line is through the swing pipe connected to the diffusers by the Sandberg quick connecting coupling, which is manipulated with a hand wheel. A motor carriage moves the swing pipe.

The steam from the diffuser goes to the Gothner trap where the liberated pulp and liquor is accumulated during the blow. After the blow the pulp and liquor in the trap is washed back with black liquor to the same diffuser which is thereby better filled leaving less room for liquor in same, which is an advantage in washing.

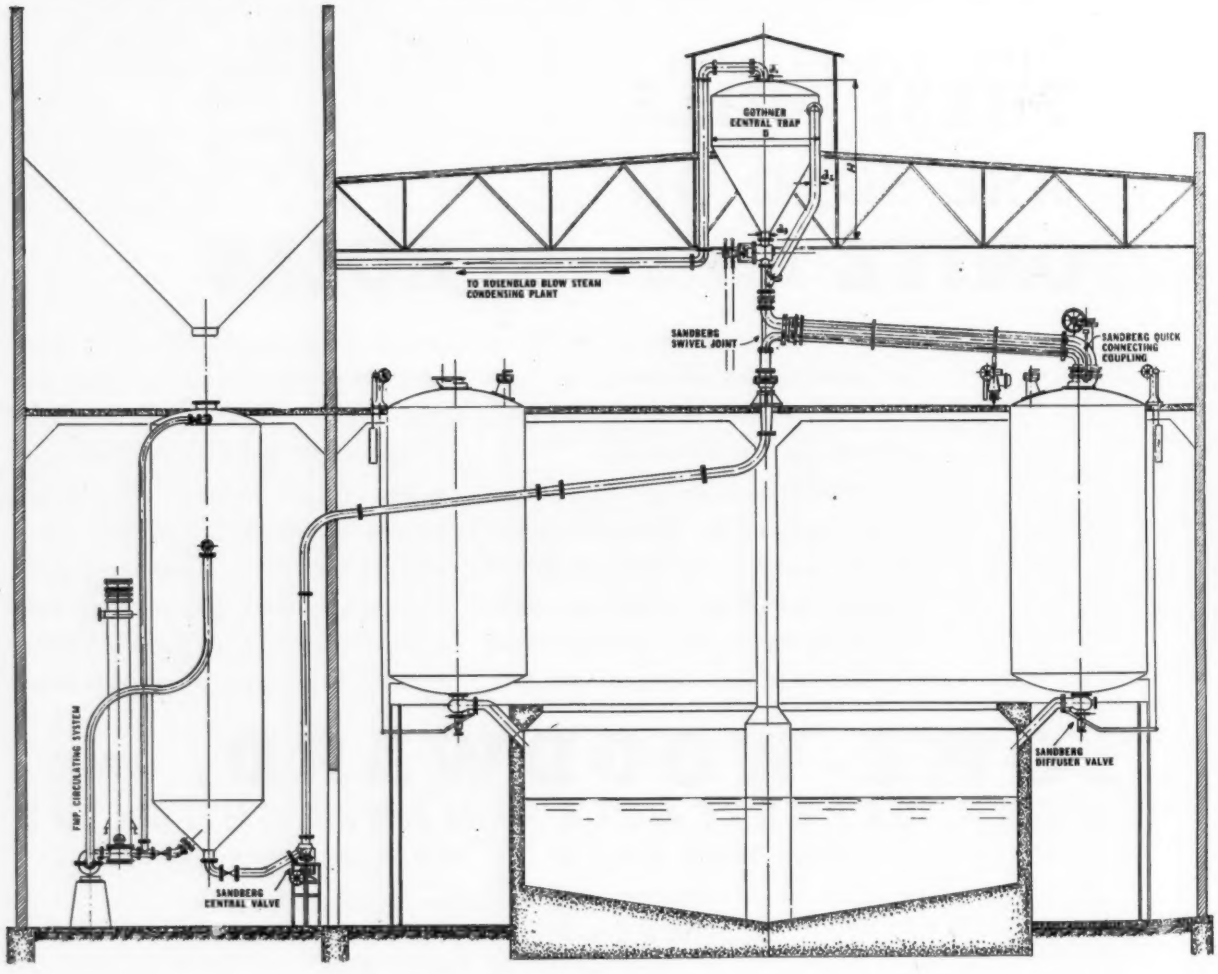
The vapors from the Gothner trap go to the Rosenblad Blow Steam Condenser Plant where clean hot water is produced in the spiral heat-exchangers by the hot contaminated condensate.

The Sandberg diffuser valve is a motor driven valve in the bottom of the diffusers and is manipulated from the operating floor. This eliminates the man hosing out the pulp through the side door of the diffusers as practiced heretofore.

The arrangement shown is used in the newest mills in Scandinavia.



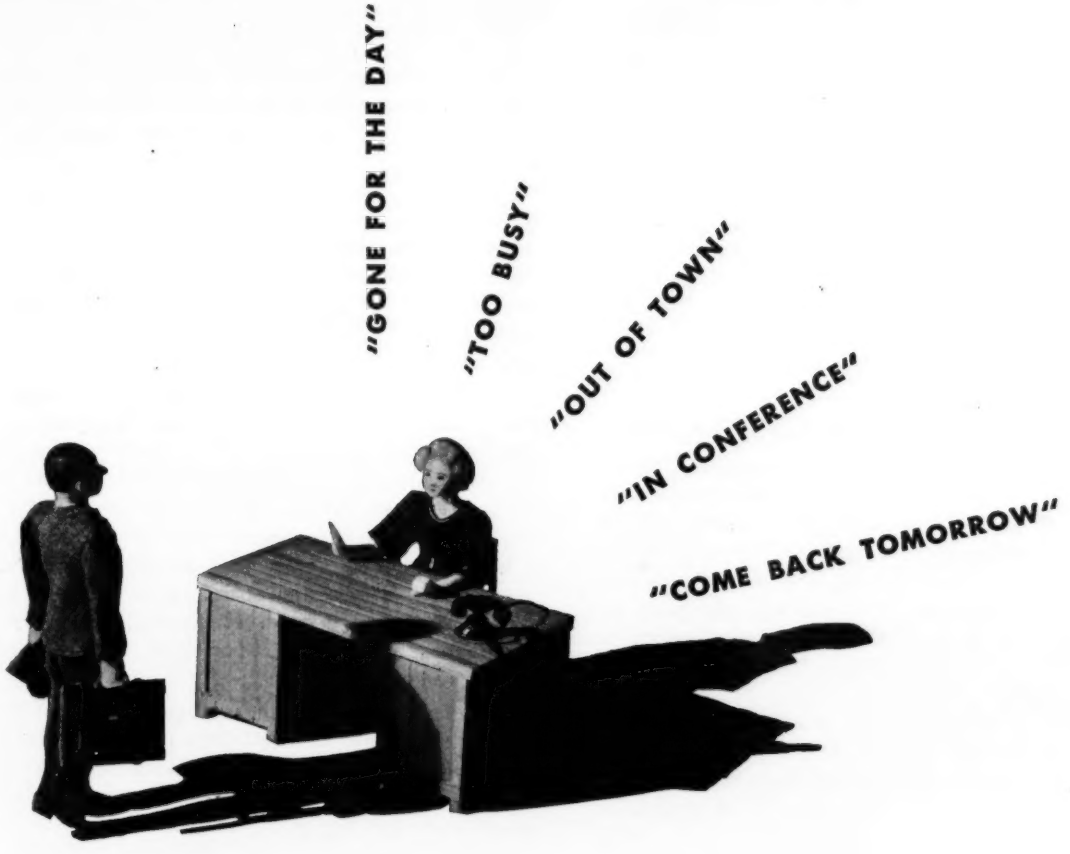
GÖTHNER TRAP



LAYOUT OF DIFFUSER ROOM

WHEN YOU PLAN A BUSINESS TRIP, REMEMBER

Telephone APPOINTMENTS
prevent DISAPPOINTMENTS



Next time you go out of town on business, go by telephone first. Make appointments with those you must see. You'll save yourself long lobby-waits and useless visits. You'll save money. And you'll save the other folks' time too. . . . Try it one week and see.

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FUTURE MEETINGS

TECHNICAL ASSOCIATION OF THE PULP AND PAPER INDUSTRY, Summer International Meeting in Canada, August 3 to 7, Montreal, Quebec, The Saguenay. Details may be obtained from the secretary, R. G. Macdonald, 122 East 42nd street, New York.

NEW ENGLAND SECTION, Technical Association of the Pulp and Paper Industry—Third Friday of each month at the Nonotuck Hotel, Holyoke, Mass.

DELAWARE VALLEY SECTION, Technical Association of the Pulp and Paper Industry—fourth Friday of each month at the Engineers Club, Philadelphia, Pa.

LAKE STATES SECTION, Technical Association of the Pulp and Paper Industry—second Tuesday of each month at the Conway Hotel, Appleton, Wis.

KALAMAZOO VALLEY SECTION, Technical Association of the Pulp and Paper Industry—First Thursday of each month at the Park-American Hotel, Kalamazoo, Mich.

AMERICAN PULP AND PAPER MILL SUPERINTENDENTS' ASSOCIATION, Annual convention, Grand Rapids, Mich., June 24-26, 1936.

INDUSTRY AGAIN FACES REGIMENTATION

Terming the Walsh Bill as another attempt of "Planned Economy" to enforce regimentation of business and labor, and a scheme to make the Secretary of Labor virtual dictator of American business, conservative elements lashed out at NRA restoration in a vigorous pamphlet, published by Farrel-Birmingham Company, Inc., Ansonia, Conn. The pamphlet is written by the well-known business economists, Allen W. Rucker and N. W. Pickering, president of the company.

The authors assert that despite its disarming title, the so-called Walsh Bill, now before Congress, places in the hands of the Secretary of Labor absolute power to control wages and hours not only of those who directly sell the government but also of those who supply materials and supplies used by the principal contractors. It will ultimately result in bringing virtually all industry under the domination of the Federal Government.

It is stated that the provisions of this bill represent, undoubtedly, the shrewdest attempt yet made to bring industry under the domination of Washington, and the control of "Planned Economy." It is without question the crowning effort of those who insist upon the 30-hour week and governmental fixing of wage rates.

Its shrewdness lies in the fact that its provisions mask its economic significance and leave many to suppose that they will not be affected merely because they do not sell to the government. But examination and reflection speedily show that few, if any, businesses can long remain immune from the domination of Washington if this bill becomes law.

It doubtless will be contended that this bill, if enacted, will re-employ idle workers and increase the purchasing power of labor everywhere. Such a contention is immediately belied by the actual experience of the country under NRA as compared to periods immediately before and after.

To enact the Walsh Bill is simply to return to the same experiment which failed so miserably before. Neither employment, purchasing power nor industrial activity can possibly be affected, except adversely, by the hour and wage dictates of the Secretary of Labor.

But, there is back of this scheme of regimentation, forces far more powerful than the ostensible desire to benefit labor. Those forces are two in number:

1. The world-wide agitation of socialistic movements to make business subservient to government, incorporating such concepts as "Social Justice," "Share-the-Wealth," "Social Security," "Social Credit," etc., as well as "Planned Economy" and "Economic Determination." The underlying principle of such movements has already resulted abroad in business being controlled by the dictators operating under Fascism, Nazism and Sovietism. In the United States and England, at least, a partial control is already exercised by "social security" legislation, unemployment insurance, etc. The power of socialistic control will be massed behind the Walsh Bill.

2. All such movements invariably and inevitably dislocate industry and commerce, distort wage and price relationships, and perpetuate both a lower standard of living and widespread unemployment. The internal difficulties of Germany, Russia and Italy are too well-known to require comment; the presence in the United States of a body of eight or ten million unemployed must shortly germinate a deep-seated social unrest that no popular government can withstand. It is essential, therefore, that the political allegiance of labor must be won against the day of reckoning.

In conclusion, the authors emphasize the facts that the Walsh Bill has attracted little attention because of its disarming title; those who have commented upon it have often quickly accepted it merely as governing wages and hours upon government contracts.

The bill, however, controls, through the Department of Labor, the wages and hours not only of principal contractors but also of any supplier of raw material, parts, and the like who sells a principal contractor.

In consequence, it reaches and includes nearly all industries and must eventually set a prevailing standard of wages and hours which none can successfully ignore.

The bill gives the Secretary of Labor power to set wages and hours without restriction, save on the downside; those wages and hours may be, at the discretion of the Secretary different for various sections of the country and for various industries, and may be changed from

time to time as he (or she) may decide. It provides the Secretary with the means and the power to investigate and examine industry at will, to hold hearings and to determine findings conclusive on all buying departments of the government; and thus directly or indirectly enforce throughout industry any schedule of wages and hours that socialistic sympathy and political necessity may dictate.

As such, it cannot be too strongly condemned nor too intelligently and vigorously opposed—nor, too speedily!

International Report $2,840,898 Loss

International Paper Company had a consolidated net loss of $2,840,898 last year, after all charges, compared with $3,009,717 in 1934, the annual report to stockholders by Richard J. Cullen, president, reveals.

Mr. Cullen points out that with an increase of 8 per cent in the physical volume of business and a slight rise in average selling prices, there was a substantial increase in gross sales, which was offset almost entirely by increases in expenses. The increase, he added, was due primarily to the greater volume of business.

A wide program of mill improvements was undertaken last year and plant accounts were increased by $2,893,911. No new paper machines were installed, but new supplemental equipment was provided at many mills and existing equipment was rebuilt. As a result, repair charges increased $657,520 over 1934, Mr. Cullen points out.

Net working capital of $17,654,199 was $801,369 less than at the end of 1934, reflecting expenditures for capital improvements and funded debt requirements. Consolidated current assets at the end of 1935 amounted to $43,-989,879 and consolidated current liabilities were $26,244,-680, including notes payable of $15,939,659.

Consolidated income account items, as of December 31, compare as follows:

	1935	1934
Gross sales	$94,563,321	$86,207,527
Other income	1,038,312	1,094,855
Cost of sales: expenses	$86,493,185	77,500,356
Deductions: Interest	4,942,988	4,988,375
Amort. of disc. and exp.	364,838	373,447
Depreciation	5,057,505	4,946,284
Depletion	723,051	748,531
Prov. for taxes	345,184	186,864
Dividends being paid but not being paid on pref. shares of sub.	504,400	506,116
Net Loss	$2,840,898	$3,009,717
Profit on bonds redeemed in 1935	420,361	.....
	$2,420,537	.....
Deficit—Jan. 1, 1935	17,900,109	.....
	658,139	.....
Ded. susp. adj.	658,139	.....
Deficit—Dec. 31, 1935	$19,662,507	.....

The report shows that unpaid cumulative dividends on 7 per cent and 6 per cent cumulative preferred stocks of the company from April 15, 1931, to December 31, 1935, amount, respectively to $31,667,868 and $516,401, or a total of $32,184,270.

Says Japan Should Buy More Canadian Pulp

[FROM OUR REGULAR CORRESPONDENT]

VANCOUVER, B. C., April 25, 1936—Gordon W. Land, of the A. Cameron & Co. Limited, Kobe, Japan, agents in Japan for the B. C. Pulp and Paper Company, Limited, recently spent some time in Vancouver, B. C., on one of his periodical business trips. Mr. Land stated that there should be a much larger trade in Japan for Canadian wood pulp and rayon pulp. Japan would buy much more from Canada if Canada would reciprocate by buying more from Japan, Mr. Land declared.

Production Ratio Report

These statistics are based upon paper production reports to the American Paper and Pulp Association:

COMPARATIVE MONTHLY SUMMARIES

Month	1936	1935	1934
January	76.1%	65.8%	...
February	77.9	70.0	...
March	76.0	70.5	...
April	...	70.0	...
May	...	69.4	...
June	...	72.3	...
July (b)	...	67.8	...
August	...	10.9	...
September (c)	...	75.0	59.4%
October	...	75.6	64.7
November	...	75.3	61.7
December (a)	...	74.3	62.1
Year	...	71.2%	

COMPARATIVE WEEKLY SUMMARIES

Current Weeks, 1936		Corresponding Weeks, 1935	
* April 4	80.4%	April 6	70.8%
* April 11	82.9	April 13	68.7
* April 18	81.4	April 20	69.9

The following statistics show the number of mills reporting by ratio groups:

NUMBER OF MILLS REPORTING, CURRENT WEEKS

Ratio Limits	April 4 1936	April 11 1936	April 18 1936
0% to 50%	88	64	50
51% to 100%	252	269	202
Total mills reporting	340	333	52

* Subject to revision until all reports are received.
These data exclude (a)—Christmas Day, (b)—Fourth of July, (c)—Labor Day.

Paperboard Operating Ratios

According to reports from the National Paperboard Association, per cents of operation, based on "Inch-Hours," were as follows:

1934		1935		1935		1935		1936	
Sept.	62%	Jan.	61%	May	61%	Sept.	69%	Jan.	61%
Oct.	63	Feb.	67	June	65	Oct.	76	Feb.	67
Nov.	56	March	67	July	59	Nov.	70		
Dec. (a)	53	April	61	Aug.	65	Dec.	60		

Week ending March 7, 1936 68%
Week ending March 14, 1936 67
Week ending March 21, 1936 65
Week ending March 28, 1936 65%
Week ending April 4, 1936 70
Week ending April 11, 1936 68
Week ending April 18, 1936 68%

Geo. H. Mead Gets Important Appointment

DAYTON, Ohio, April 27, 1936—Miami Valley paper men were keenly interested in the appointment of George H. Mead, president of the Mead Corporation of this city and Chillicothe, Ohio, as a member of the Committee on Industrial Analysis, created by President Roosevelt to study NRA's results.

Mr. Mead had performed an important task for the Nation at the request of the Government, having coordinated industrial relations and had also accomplished much good for the paper trade in general. Associated with Mead will be William H. Davis and Dr. John M. Clark, New York, and George Harrison of Cincinnati. The latter is well-known in this section of the country. The committee, which was established by President Roosevelt in an executive order March 1, is headed by Secretary Roper. Secretaries Wallace and Perkins also are members.

Government Paper Bids and Awards

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., April 29, 1936—The Government Printing Office has received the following bids for 2,500 pounds of 26 x 38 newsboard: Mathers-Lamm Paper Company at 1.72 cents per pound; Whitaker Paper Company, 1.75 cents; George W. Millar & Co., 2.5 cents; Dobler & Mudge, 1.75 cents; R. P. Andrews Paper Company, 1.73 cents; and Virginia Paper Company, 1.75 cents.

The Mathers-Lamm Paper Company has been awarded the contract for furnishing the Printing Office with 36,000 pounds (201,000 sheets) of white antique book paper at 5.23 cents per pound, bids for which were received on April 13.

they will not be affected merely because they do not sell try and for various industries, and may be changed

By Accepted Tests . . .

Zinc Sulphide Papers are more Opaque

A visual test will sell the consumer these desirable papers with their superior opacity and color. These qualities, so apparent in an optical test, can be economically produced by Zinc Sulphide Pigments. And the complete range of strengths provided by the CRYPTONE and ALBALITH Zinc Sulphide Pigments furnish the means for obtaining these qualities in the desired degree.

Our Technical Service and Research Departments cooperate to the fullest extent with manufacturers on any phase of this development.

New Jersey zinc

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Edited by Ronald G. Macdonald, Secretary

Physical Characteristics and Printing Quality of Paper*

By John Niemczyk[1]

The report of Ernst Mahler to the American Paper and Pulp Association, on November 20, 1935, covers very thoroughly the need for proper understanding between the producers and consumers of paper and paper products. This paper also gives the true solution of the problem, that is, scientific analysis of the fundamental properties of paper and proper standardizing and development of adequate instrumentation for the determination and evaluation of these fundamental properties.

Although paper making as an industry has existed for centuries, manufacture of paper for lithographic purposes on an extensive scale, and for high speed presses is of recent origin. Simultaneous with this there has been a marked movement in recent years toward standardizing methods of testing the finished product in a distinctly physical way. This is quite evident from the number of testing appliances used for measuring the various physical qualities of paper. A great incentive to this is the efforts of printers and other paper consumers to order their paper made to specifications. These are based on various tests made on paper of good quality as borne out by actual manufacturing results in the various operations. The present procedure of the consumers attempting to set their own specifications is becoming standard practice, and the Government Printing Office, Dennison, Sears, Roebuck, and the W. F. Hall Printing Company are definite examples of this trend. Whether or not this procedure becomes orderly and successful, is greatly dependent on the wise choice of testing methods and apparatus, and the correct interpretation of results therefrom. Much is dependent on the cooperation of the papermakers in their efforts to standardize instrumentation as well as their testing conditions, materials and methods of manufacture to meet such specifications. Our experience has definitely proven the need for cooperative effort between TAPPI and the technical men from the printing and other consumers' industries to establish a scientific foundation for instrumentation of fundamental properties determination.

Quoting Mr. Mahler: "To give you an example of how little most of us know, let me read a list of some of the properties. First of all, there are the socalled fundamental properties: thickness, weight, density, expansion and contraction, formation, surface contour, porosity, light transmission, light absorbency, reflectance, color, elasticity, stretch, hardness, compressibility, stiffness, tensile strength, bending strength and shearing strength. In addition to these properties there are evaluations of paper which are often considered as fundamental, but in reality are a result of a combination of two or more of the foregoing. The failure to make this distinction has been the cause of much confusion in the application of testing instruments and in the interpretation of testing results. A list of these evaluations is comprised of the following: bulk, absorbency, degree of sizing, resistance to wear, abrasiveness, finish, smoothness, bursting strength, folding strength, tearing strength, creasing strength, opacity, gloss, curling, surface bounding strength (pick test) and fuzz. It is possible that most of us have never been completely cognizant of all these properties before. Yet—they definitely affect the character of paper and, when present in certain proportions, define its usability.

"The paper industry must make major changes in its method of distribution if it is to keep abreast of other major industries. Despite the fact that it has come to specify its raw materials in terms of scientific units, the industry still sells its product largely on the basis of traditional concepts or in alleged conformity to several scraps of papers that are submitted for sample purposes. That such a procedure cannot long survive is proven by the increasing attempts of consumers of paper to set up their own specifications."

Printing Paper Difficulties

What is to follow in this little discussion is no news to any of you. Most of you have listened to similar discussions before, and surely all of you have had numerous opportunities to read articles relative to paper and printing. But as long as the misunderstanding between the papermakers and paper users on the present varied equipment used to interpret the physical properties of paper will continue, not only should no effort be spared in bringing about a better understanding between the two through repeated and frequent meetings and discussions, but greater efforts should be exercised in alleviating whatever poor

*Presented at the meeting of the Kalamazoo Valley Section of the Technical Association of the Pulp and Paper Industry, Park-American Hotel, Kalamazoo, Mich., Dec. 12, 1935.

[1]W. F. Hall Printing Company, Chicago, Ill.

conditions are known to exist, and further progress should be encouraged toward improvements.

Of the many characteristics of paper, previously enumerated, the following, I believe, have the greatest bearing on the quality of work produced in printing; weight, thickness, formation, density, strength, ink absorbency, surface smoothness. surface strength, opacity, bulking, degree and character of sizing, curling, and fuzz.

The principal and most frequent complaints in printing are known as strike through, show through, offset, surface picking, and uneven printing.

The term strike through is used to denote the staining of the reverse side of a printed sheet by the ink vehicle penetrating through the paper. This, of course, affects the quality of printing on the opposite sides of the sheet.

The term show through denotes the appearance of printed matter on the reverse side, or the back of the paper. Show through is, in a greater part, directly related to the transparency of paper, whereas strike through tends to accentuate this condition.

Offset is one of the most serious troubles encountered in printing. The term is used to denote the transfer of ink from a printed sheet onto the back side of the following sheet, or onto the same sheet, if it is folded as in the case of forms printed on rotary presses. Offset can also occur between the first and second impression cylinders of a rotary press.

Picking is the breaking or picking of the surface of paper by inks used in printing on it. This condition is usually prevalent in papers with insufficient or improper sizing, or calendering.

Uneven printing has reference to the mottled or spotty appearing printed matter, and is primarily due to poor formation.

Before we go any further, let it be understood that all of the above mentioned complaints are not solely related to paper characteristics. For example, strike through and show through can, not only be greatly influenced, but often entirely accounted for by poorly compounded or milled inks, in which the pigment particles are not well dispersed, thereby causing a separation of the vehicle base when transferred onto paper, and consequently resulting in strike through which, in turn accentuates show through.

Offset can be the result of an ink unsuitable for a certain paper; instead of setting into the paper, it sets on top and then is transferred in part onto the following sheets. The application of too much ink also results in offset.

Uneven distribution of ink on printing forms, due to inferior ink or improperly set distribution rollers, or insufficient impression can result in mottled or spotty printing.

But, since at present we are discussing paper, let us view these difficulties only as they are related to or affected by paper characteristics. Before we discuss these individually, let me mention one very important factor which has a great bearing on the results produced, one which never can be stressed too greatly, and that is uniformity. You might go to considerable expense, spend much time and energy in developing a paper, let us say smooth enough and strong enough to satisfy the printer, but, whether it is weight, thickness, absorbency, smoothness or strength, any good results obtained therefrom are voided to a great degree if the paper is not uniform.

Weight is measured in the conventional way, using a 1,000 square inch sample, and weighing it on a scale sensitive to 1/20 of a milligram. Thickness is measured by a gauge, sensitive to 0.0001 inch, having a dead weight, suspended on a jewel bearing for pressure, which is superior to the old type having a spring tension. Any variation in weight, resolves itself in a variation of thickness, all other factors being equal. And a variation in the thickness of a paper can have a two-fold effect on printing results. If the thickness is low there will be lack of impression resulting in uneven and broken printing. If the thickness is too great, there will be too much impression, the dots in the screenwork punching into the paper rather than printing on its surface, the result being indistinct and dirty looking halftones.

The rate of absorption of ink by a paper is important, since it is directly related to ink drying, offset, show through and strike through. The rate of absorption is measured by one of the following two methods: For lighter weight papers, like print, machine finish, English finish and light Supers, the Oil Drop Method is used. This method is considerably shorter than the Oil Flotation Method, and more reliable and satisfactory information can be obtained as to the ink resistance of various papers. But it must be remembered that since papers vary in thickness as their weight increases or decreases, all other factors being equal, all results should be resolved to a single unit of thickness or unit area penetrated.

Because of the possibility of a number of variables existing at one time in coated papers, such as a non-absorbent coating and a highly absorbent body stock, or a very absorbent coating and a very non-absorbent body stock, etc., the penetration method is not suitable, as misleading results can be obtained. For this reason the oil absorption method has been developed by our technical department for all coated papers and heavy supers. The procedure of the method, in short, is as follows:

"A drop of oil is allowed to fall onto the paper. A film of this oil is spread on the paper by running a roller over the drop of oil. This is done immediately after the drop of oil strikes the paper to be tested. As the oil is spread a stop watch is started. The time is noted when the absorption of the film of oil by the paper is complete."

Variation in ink absorbency of a paper can have the following effects on printing results: If the rate of absorbency increases, i.e. the paper becomes too absorbent, there is a tendency toward strike through and show through on the lighter weight papers. On coated papers, an increase in the rate of absorbency results in dull, lifeless printing. In extreme cases, the vehicle setting into the sheet so rapidly, leaves the pigment on the paper relatively dry and without a binder; a touch of the finger or another sheet will easily rub it off. This condition is known as chalking off of an ink. If the rate of absorbency decreases, i.e. the paper becomes non-absorbent, the result is poor drying of the printed matter, and offset.

Several methods have been developed for testing the surface strength, or the resistance of paper to ink picking or breaking its surface. We have adopted the use of a series of waxes varying in hardness, known as the Dennison standard paper testing waxes. So far, we have been obtaining results which are very closely related to press performance, and we can predict fairly well when any trouble of picking is to be expected.

Since ideal printing embodies an even deposit of ink on paper, surface smoothness is the most important factor from the standpoint of printing. For the simple reason that a paper of a uniformly smooth surface must be had to begin with, before any attempt is made to deposit ink on it evenly and expect good results. There are several types of surfaces encountered in various papers. There is the uniformly rough surface usually present in papers of little or no calendering, such as egg shell. Then there is the relatively smooth paper, whose surface contains numer-

ous indentations or hollows, which are sufficiently deep to prevent ink contact. Any attempt to increase printing pressure to cover up these areas with ink, usually results in indistinct and dirty looking halftones. By the increased pressure, the screenwork instead of being printed by the tops of the dots, is done by the areas around them, the dots themselves being pushed into the surface of the paper.

Until several years ago, when a number of smoothness testers, based on the air flow principle, were put out commercially, there were no methods of measuring this property of paper, numerically. These smoothness testers have been publicized extensively by many who claim that test results obtained are directly related to actual press performances. We have been using one for several years, and, like many others, have found test results to correlate with press results fairly well in majority of cases. Again in numerous cases they agree only roughly, and quite frequently are entirely different from actual printing results. On papers that are uniformly rough, or on checking deliveries of one type of paper having the same furnish, test results have been found to agree quite well with printing results. But on smoothly calendered papers which contain indentations or hollows, the smoothness test results cannot be depended upon to give even an indication of what to expect on the press. This can be readily visualized from the construction and principle of the smoothness testers, which in no way provide for, or have any means of indicating the presence, or depth and extent of such indentations in the paper.

Formation Plays Important Part

Formation plays an important part on the uniformity of surface smoothness. Any great variation in the formation of a paper resolves itself in the variation of surface smoothness. Usually the light portions or areas in a paper of wild formation have hollows or indentations, whereas the heavier areas are calendered smooth and are free of them. This can be explained by the assumption that the light areas having less furnish than the heavier ones, on calendering result in a sheet with areas of open texture where fibers have gaps between them.

Opacity of paper is generally considered as a direct function of the amount of paper substance such as pulp, filler, size, etc., that can be interposed between a source of light and an observer. Of the many opacity testers available, the ones measuring transparency, or the light emerging from a sample of paper in comparison to the amount striking it, and the others using the contrast ratio principle, are greatly favored for measuring the opacity of papers. We have been using the former type for quite some time, and have found it to give not only an accurate measure of opacity, but have been able to duplicate results very accurately on some samples of paper after a lapse of even several months, and have found instruments of the same make to check very closely on identical samples.

Experiments on Proof Press

Within the past year, considerable literature has been put out on the use of a press, of the proofing type, for comparison of different papers for printing qualities. One Englishman, P. H. Prior, has created considerable interest and attracted many favorable comments through his interesting experiments in printing, on a proof press as a test for surface smoothness. Strange as it may seem, I believe, it is just human nature, especially inherent in our American people, not to make as much fuss and give as much consideration and respect to any new ideas or new procedures suggested by our own people, as we do to those of individuals who are relatively strangers to us. The reason for such a remark is this. Right in our midst, in the Middle West section of our Country, there is a man who purchases and uses annually, a great volume of different papers, both coated and uncoated. For the last twelve years this individual has been using the proof press method for evaluating printing quality of papers for his personal information, and has made numerous attempts to interest both the papermakers and printers in this method but his efforts were not very successful. Many considered the method inaccurate, others, displaying a too technocratic attitude, considered it impractical because the results obtained could not be immediately resolved into numerical values. Still, it is within common reasoning that the only accurate way to determine the printing quality of any paper, is to actually print on it. In spite of all that, a sort of silent and unintended tribute has been and is being paid to this individual. No matter what paper he buys, and regardless of where he buys it, it is considered by many other paper consumers as good paper to print on. For a number of years many of them have extended themselves in their efforts to learn the source of his supply, and then use this knowledge to their advantage by buying the same paper.

We, at present, are using a proof press for predicting the relative behavior of papers on a press, especially papers of different make or furnish. We use a solid plate for printing, and print the two different papers at one time, underlaying a sheet of each with a sheet of the other, to obtain identical impression and cushioning effects. Of course, it is very essential that a uniform layer of ink is deposited on the plate to obtain comparative results. By this method quick and accurate comparisons are obtained as to the smoothness of printing, the relative opacities as indicated by the show through, and the amount of strike through.

Results obtained are very valuable in checking physical test results, especially those obtained on smoothness testers.

In addition, we have found the use of a binocular microscope invaluable, in examining the printing surface of various papers for the presence and size of indentations and pinholes as determined by both the smoothness tester and press proof.

Conveyor Belt Record Book

"Cost Finding Record Book for Conveyor Belts" is the title of a new book recently issued by the B. F. Goodrich Company, Akron, Ohio and is available to anyone who is interested in maintaining a running record of conveyor performance as a means of determining actual belt cost.

The book contains eleven belt and conveyor record sheets. This record form is based upon the long experience of the manufacturer in this field and the suggestions of leading conveyor engineers and users throughout the United States. It can be maintained at slight expense.

In addition to the record forms, this book contains the following sections:

A. Conveyor Belt Data

1. Relation of belt width to size of material handled.
2. Recommended speeds for various belt widths.
3. A table of general data listing working tensions, hourly tonnage, horsepower required and proper idler spacing for conveyor belts ranging from 12 to 48 inches in width.

B. How to Prolong Belt Life.

Discussion of belt speeds, tension, loading chute and skirt board design, unloading methods, care of pulleys and idlers and prevention of belt injuries.

A copy of this book can be obtained by addressing your request to the Mechanical Rubber Goods Division of the B. F. Goodrich Company.

Relationship of Management to Technology*

By A. Byron Hunicke[1]

When it was suggested that you might be interested in a talk on "Relationship of Management to Technology," I began immediately to ponder over which is the most important end of the title and to wonder whether interest would be most pronounced in the value of management to technology or vice versa—and whether, after all, the stress should not rather be upon the interdependence of these two services.

Since, by definition, management's job is to carry on, direct, conduct or regulate a business and to achieve desired results by skillful action, there is, and indeed always has been, a certain technical routine, or one might say, a technology of management itself.

Now, the business of paper manufacturing is, as you all know, very old and, like a good many old industries, it had a long established technique or artisanship, and an equally well entrenched routine of management before technology, in the modern sense, was born. In the older arts, such as this one, man has perhaps been a little slow to define his need for technological aid. The same is true of many old industries, such as the spinning of yarn, the weaving of textile fabrics, the manufacture of dyes—to mention but a few.

Personal Opinion vs. Technical Facts

I am but one of many whose experience embraces the keen disappointment felt by management responsible to owners for profit on their investment, who has dismissed an entire staff for failure on its part to produce a salable product, only to find that the new staff, based its demand for additional capital expenditure to correct the faults of its predecessors almost, if not entirely, upon the opinion of some individual.

How many times in the paper making business has the new superintendent demanded thousands of dollars of changes in equipment against which owners and managers have had no better assurance of results, than his personal opinion? How many of us have wondered whether it all was necessary and how often have we found, after the money was spent, that only a part of it really was necessary?

It is a compliment to great paper makers to acknowledge their ability to make reasonably similar products out of their experience in pulp manufacture and conversion and, not long ago this was the accepted vogue. People did not know better and the paper makers did the best they could—managements took their disappointments when results were not so good and the trade accepted the product and made the best of it. Fortunately, for all in those days, the public had not been educated to define the products of industry scientifically.

As long as those conditions held, there was a good deal to be desired, but life in the paper industry, without technology was tenable—then one day someone invented a cotton gin, and someone else invented a steam locomotive and, taken altogether, a few of these basic inventions completely changed the picture.

As invention followed invention, and as education became more general the market, that is to say, the people who *use* products became better able to analyze their needs, more adept at defining them, and more accurate in describing what they wanted to buy to fill particular wants.

It has not only been invention that has brought this about, for there have been other factors; some natural, such as the desire for greater beauty, more refinement and elegance, which were factors of the lush years before the depression; some artifical, such as the buying stimuli of national advertising, partial payment plans, etc.—some primitive, such as the demand for greater serviceability which grew out of the depression.

Influence of Advertising

As a homely illustration, let us take the case of Greta Garbo's stockings. We all like good things and we like them to look well. When the women of America, with much less money to spend during the depression, saw Greta Garbo's legs encased in the most perfectly sheer silk stockings that could be devised, there is small wonder that they should look very critically before making their next stocking purchase. Most of them did not have the money to afford only the finest of material and workmanship for so common an article as a stocking, but with the limited means available, the serviceability urge during a depression demanded a stocking that could stand a lot of wear; and the sense of pride and the natural desire to look well demanded high quality.

But when the stocking trade realized this they found it desirable to show stockings more attractively, so they dolled up the show windows. They used the best background to set the stockings off advantageously. When this was done, the advertiser, dependent upon printed media, had to keep pace or lose sales, so he demanded better printing and color work for which, of course, paper is the background. Now this illustration may sound far fetched, but it really is just such mass psychology, started from seemingly inconsequential things, that change trends and force old habits and ways of thinking out of industry to make way for better materials, equipment, brains and products.

There is another factor entering into such a purchase and one which is not always as evident as might be and that is the desire for an article which can be purchased with the confidence that when it has to be replaced, the same value will be found under the same trade mark.

Indeed, this is a point, and a very essential point of modern manufacture. In a discriminating market, one must not merely be able to manufacture something. Distinctly, one must manufacture an article vendable for well defined uses. Even then, one is not entitled to much respect as a manufacturer until the making of such a product has become sufficiently standardized to build up a stable user confidence in it.

Now, if we conceive a product, as something made according to certain definite standards, to be salable for certain specific uses, or within a certain range of uses, then it becomes management's job on behalf of the stockholders or others employing it, to meet this situation at a profit. It is not hard to judge how difficult this would be in a society unable to offer its expert artisans the means of scientific aid.

Standards and Control Methods First

We have tried to lead up, historically, in a brief way, thus far, to some of the reasons why twentieth century management cannot do without the aid of technology. There are many other reasons but they all begin with the necessity for making a consistently uniform product for

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a discriminating market at costs low enough to yield profits. Conceding that management needs technical aid, it becomes technology's turn to ask in what way it can best serve that want.

Here the reasons come so fast that they are like a rush of blood to the head. First, we see some of the big ways that stand out; you all know them better than I. Starting with the simple routine tests, technology has wisely set up and which the entire paper making profession has acknowledged to be indispensable to the guidance of the paper maker, we can name them one by one. It is not the intention to attempt that here, but it may be profitable to pause over a few of them in this sort of discussion.

If we are to build up a product such as we have just described, we immediately find ourselves face to face with problems quite different from those confronting our grandmothers, when they made stew composed of a little of this and a little of that and seasoning to taste. Indeed, we are much more nearly in the position of the great architect who designed the Empire State Building, or the engineer who designed the Golden Gate Bridge. We actually have to sit down to design a sheet of paper and then engineer it.

Use Requirements and Specifications

Our salesmen, representing the customer, describe to us as accurately as they can what the paper is to be used for, how much of it may be needed and frequently they tell us the market price within which we must keep to make a profit. The most modern salesmen have absorbed something from technology and are thus able to bring to us from the customer some of the more important points that we need to know in designing our sheets of paper and when words fail the salesmen to describe it—they often bring a sample, which is perhaps the best description of all when that can be done. So, with this as a beginning, management looks to technology to analyze the salesmen's reports and samples and to tell us therefrom the detailed description of what we must do to supply the customer with what he needs.

Commonly, the paper maker gets the sample as a part of this description or specification and he gets from the laboratory the furnish, Mullen, tensile, tear, the opacity, the basis weight, and some of the other factors which he has to meet. Now, this is what one might call a skeleton specification, just like my friend the architect about to design an Empire State Building, might reduce to writing, a description of what the owners want. That is to say, a building to cover such and such a lot, to have so and so many rooms for such and such purposes; to be equipped with elevators to accommodate the occupants and that with all this, heat, light, ventilation, city regulations and appearance of the finished structure, both within and without, must meet the requirements of its use and its environment.

Similarly, the engineers for the Golden Gate Bridge might write just such a description and yet neither the architect nor the engineer in these two cases have done more than begin to cover the case.

True, the chemist who gives the mill superintendent the furnish and all of the factors enumerated has materially aided management in telling what the finished sheet must do, just as the architect and engineer have materially clarified the picture of the finished building or bridge and what it is to do; when a descriptive specification, such as outlined above, has been written.

But, after all, this is only a first step. Obviously, before either the building or the bridge can be built, the builder must have many materials and must know the order and arrangement of their assembly. Someone may say that the furnish as determined by the laboratory forms a specification of the sheet, like an architect's list of materials for a building, and in a sense, that is true. But something more than just a list is needed. We don't expect the contractor to guess correctly as to whether the steel framework of our building is to be exposed on the outside or whether it is to be covered with stone in this place and brick in that, but we draw him a carefully prepared scale picture of it, with plenty of annotations, so that there can be no misunderstanding as to just how we want it to be. Yet, many times in my own experience, and I am sure it is no exception, I have seen the mill superintendent supplied with a sheet of paper, like a beautifully rendered perspective of a building, without a dimension or note on it, and the furnish, like a list of the materials to be used, and all of the intervening data and steps to be taken, are left entirely to his imagination.

Proper Use of Records

If the mill has never made this sheet before, then perhaps the only thing to do is to leave it to the paper maker to duplicate the sheet . . . but, if that sheet is to become a product—in other words, if the mill is to duplicate it over and over again, for that particular customer, or for a particular use, then technology has lost a glorious opportunity, unless trained observers have reduced to record all of the steps incidental to reproducing that sheet in the future. Management too has lost a golden opportunity unless it first sees that these records are complete and made available to the manufacturing department for use whenever this sheet is to be reproduced. The manufacturing department also has lost a golden opportunity unless this is done, for they have produced something which they cannot duplicate without all the hazard and speculation attendant upon their first venture into this sheet. In fact, they have more to lose than to gain, for if the first delivery is satisfactory, and through some misfortune the second falls short of the first, they are definitely in the way of losing all the ground thus far covered in that particular market.

On the other hand, if our technologists make really complete records of such a run, and I am referring now to all the steps of conversion, beginning with the grinding of wood in the groundwood mill, or the chip making in the sulphite mill, through to the finished sheet, they will have available for the paper maker who must reproduce his product, all such items as burring of stones, grinding temperatures and pressures, the sizes of screen plates, consistency and other conditions of the stock at various critical points along the line of its travel. All the details of conditions in the sulphite mill, the amount of dry fiber and moisture, and the amount and kind of acid and its strength, cooking temperatures, dirt counts on decker stock, beating time, beater rolls adjustments, exact proportions of all items composed in the furnish, consistencies, Jordan settings, the power consumption of each machine; the different conditions applying on the paper machine itself, its screens, its wire, mesh, slope, speed, shake, etc., free drainage, suction box conditions, the weights on the presses, the felts used, drying, calendering and winding conditions—yes, and even the materials and manner of finishing.

All of this may sound expensive and if it is properly done, it will certainly require the time of a small corps of highly trained technical men to observe all of the conditions attending a run, to classify and record them in a form usable to manufacturers and management. But the former, that is, the paper maker and his staff, need the data presented in a way useful to the exact duplication of the sheet, whereas, management needs the data presented in a

way useful to sales, cost accounting, organization and production.

Maintain Standards

Having acquired complete technical data concerning a run, the next point at which technology can aid management is in establishing and maintaining adequate checks and balances to see that whenever these particular runs are duplicated, each step in the record is repeated exactly as it was done before. Note, in this respect that the question of improvement in quality does not enter. It assumes that the customer has received a commercially acceptable delivery; therefore, what he is asking for, what he is paying for, is reliably consistent repetition of that thing in manufacturing. Indeed, we depart from the condition of line manufacture being back into the realm of research at some risk to business, at any point in which we deviate from honest thoroughgoing duplication of what was sold that customer before.

A reason for the grading now in progress in the industry is to enable both users and makers of paper to settle upon standards and then to maintain them. But it may prove difficult to maintain these grades if management fails to employ technology to rigidly maintain such standards. There is a great danger that he who fails to set up and to rigidly maintain standardized manufacture in the established grades he markets, will one day find himself a chiseler.

When the case of the customer who wants "something a little better" is considered, the opportunity for cooperation between management and technology seems ever more evident. Here, without detailed records concerning past deliveries, there is nothing more than paper makers' judgment to rely on. But if there has been full coordination of effort in the past, so that there are complete records, then the way to improvement becomes a scientific logical progression with correspondingly greater assurance of success at moderate cost.

Thus can technology serve management by observing, recording and making available *all* the factors affecting conversion of wood to papers on any given run and by adequate testing, keep the operating staff alive to what is going on that may upset the sequence of standard conditions.

Thus too, can management help technology by maintaining an adequate staff of trained men to do this work, a well equipped laboratory and by arrangement with the operating staff to facilitate technical observation in the mills.

Management also is in a position to see that operating staff members use the records intelligently.

This is one part of the job. There is another. If all that happens during conversion, pulping, etc., should be observed, recorded, standardized, then it follows that the same reasoning applies to each raw material used. A sheet should always be made from the same kind of wood, of the same age, from the same locality, etc. Technology should observe, record and pass on for use all these data. And the same circumstances apply to all other materials employed, such as fillers, sizings, colors, coatings—to mention a few. But if it all is to result in consistently uniform manufacture, Management and its operating staff must accept Technology's work and see that it is intelligently used.

It is not difficult to build a file of specifications defining the quality of each raw material acceptable for a given use but if technology alone or with the cooperation of the mill staff creates such a file, it is management's responsibility to see that purchases of these materials are only in accordance therewith and that deliveries are inspected and accepted only when up to the quality specified. Some money loss can be avoided by taking adjustments on substandard raw material deliveries.

A way in which management can help technology is by providing means of keeping the laboratories familiar with what the mill's product is being used for, the progressing "use" industries, such as ink and color manufacture, printing, etc. The technologists should also be kept posted on new materials, measuring instruments, mill and laboratory equipment, methods, processes, etc. In turn it should report to management on the technical phases involved in these items.

At least one person on the laboratory staff should have a membership in the Technical Association of the Pulp and Paper Industry.

There should be at least the rudiments of a technical library in every mill laboratory.

On the other hand, much good might come from the interest it would arouse if more technologists were asked to teach mill men how to make simple routine tests themselves.

If it be claimed that such a program as I have outlined would be expensive, let it be suggested that it might prove cheaper to duplicate a sheet from complete exact knowledge, than to lose a customer because someone forgot how it was made last time, or because the clay used, or some other material was substandard.

If records are right and are used, they need be made but once. The cost of observing, recording and standardizing a "first run" is a legitimate investment in that grade and might be thus set up. A part of the Laboratory expense might be offset by the application of adjustments for substandard materials or a share in the earnings from adopted improvements suggested by it.

If the mill men are taught to make some routine tests, the laboratory staff need not be excessively large. It should at all times be competent.

Gentlemen, attention has been drawn to some phases of a program illustrative of the interdependence of Management and Technology. The inference, I feel is plain that where this sort of cooperation is practiced to its logical conclusion, much loss and uncertainty will vanish from the industry. There is no novelty in it. The great Chemical Industries have done it for years. So has the automotive industry and the Electrical Manufacturing Industry.

I might have added much more for research has right to a hearing, the relation of sales to technology should not be neglected and the effort of improved paper technique upon its suppliers on one hand and its users on the other, deserve space were time available, but I am sure others can do better with them and my time must be up.

I thank you for your kind attention and I predict that before long some such program will be the practice of our leading manufacturers. Some are advancing toward it rapidly.

Scott Paper Co. To Offer Stock

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., April 29, 1936—The Scott Paper Company, Chester, Pa., has filed a registration statement with the Federal Securities and Exchange Commission covering 31,669 shares of no par value common stock and 253,357 warrants each entitling the holder to purchase one-eighth of a share of the common stock. The stock is to be offered to stockholders through the warrants at $50 a share. Any shares not taken by stockholders are to be offered publicly. The proceeds from the sale of the stock will be applied to the redemption of the company's Series A 7 per cent cumulative preferred stock.

FINDS FOR CASTANEA PAPER CO. IN SIZING SUIT

(Continued from page 13)

As bearing upon the point in the operation of a paper-making machine where the carbonate filler must be added to satisfy the minimizing principle as to time, the patentee says in his specification, page 3, lines 9 to 18, as follows:

"Inasmuch as the white water from a paper machine running on a stock containing carbonate filler contains a considerable quantity of this filler, it is preferable not to use such white water either in the beater, the beater chest, at the jordan, or in the machine chest, as in any of these places the sized fibre will come into contact with the carbonate filler in a relatively concentrated condition and for a relatively long period of time, and this will tend to injure or destroy the sizing."

It is therefore apparent that adding the carbonate filler in the machine chest would not satisfy the minimizing principle as to time, because the contact in that chest would be for too long a period.

The defendant adds its carbonate filler in the machine chest where it remains in contact with the other elements of the paper stock for a period of two hours on the average, and therefore cannot be held to infringe this claim, even if valid.

However, we find nothing new in the introduction of the carbonate filler at any of the points suggested by patentee, because the paper-making art prior to Rafton discloses the addition of fitters at every possible point in the paper-making process. The references are all collected and noted on defendant's chart (Defendant's Exhibit D 199), and we do not deem it necessary to refer to them in detail. It is immaterial whether the prior art discloses the same purpose as Rafton or not, because it is the process that is patentable, and not the theory of its operation: *General Electric Co.* v. *Cooper-Hewett Electric Company,* 249 Fed. 69; *National Meter Co.* v. *Neptune Company,* 122 Fed. 82; *Kissock* v. *Duquesne Steel Foundry Co.,* 37 Fed. (2) 249; *Dorlan* v. *Guie,* 25 Fed. 816.

Further than that we are unable to find that the theory of Rafton as to the warring attitude of the size and filler to one another applies when straight carbonate is used as a filler. Therefore the purpose of the patent is not met by defendant's practice.

Turning now to claim 8 of this patent, Rafton proposes to add the filler when the fibre is in condition to be passed onto the web-forming device of the paper machine. As we have already said as to claim 1, the prior art disclosed the addition of filler at every possible point in the paper-making processes, and in addition, defendant's practice to introduce the filler in the machine chest would not infringe this claim because the paper-forming mix must be further diluted after it leaves the machine chest before it is in condition to be passed onto the web-forming device of the paper machine.

There is also a question whether the claims of the patent would cover defendant's practice, because the claim of the patent in suit relate to what is known in the paper trade as sized paper and the paper manufactured by the defendant is practically unsized. Our conclusion is that the paper manufactured by defendant is substantially unsized paper, because it does not have the water repellant qualities of what is known in the trade as sized paper.

Patent 1,819,441

Claims 1, 2, 3, 4, 6, 7, 8, 9, 12, and 20, of the patent are in suit.

These claims are directed: (1) to a paper-comprising fibrous material; carbonate filler and paraffin; (2) to a paper of similar content in which the carbonate filler is uniformly distributed; (3) to a paper of similar content to which an aluminum compound is added; (4) to a paper of similar content with the added requirement that it be sized paper and (5) to the method of producing this kind of paper.

It is admitted by plaintiff that the use of carbonate filler and paraffin emulsion was known to the prior paper-making art but the particular use of paraffin emulsions without rosin as sizing agents with carbonate filler before the emulsion is broken by alum is claimed to be novel with Rafton.

The disclosure of this patent is stated by Rafton in lines 94, 124, page 2 of the specifications as follows:

"However, to my knowledge, heretofore it has not been proposed to use paraffin emulsions as sizing agents with carbonate fillers, nor has the specific effect been noted when such employment is made, nor the unique use that can be made of such effect.

"In some of the papers referred to above in which paraffin emulsions have been previously used, the paraffin is precipitated on the fibre while the fibre is in aqueous pulp condition, usually by alum, in discrete form so that the individual particles of paraffin are deposited from the emulsion on the fibre and coalesced by fusion on the driers of the paper machine. Paraffin is normally non-adhesive, in contradiction to certain pitchy materials which are normally adhesive materials. When precipitated in minute discrete particles on the fibre, there is a tendency, however, for some of these particles under the conditions of agitation obtaining in the papermaking process to become detached from the fibre, and such particles may be agglomerated by pressure or otherwise so that relatively coarse flakes or lumps of paraffin are formed and exist at the wet end of the paper machine. These may cause very serious trouble particularly with the screens, and the wet end of the paper machine itself particularly with various part of the machine clothing, and the press rolls."

He then states his exact discovery in the following language:

"I have discovered that a paraffin emulsion and an aqueous suspension of carbonate filler mutually flocculate one another and that this 'flocculate' or 'complex' of paraffin and carbonate filler does not partake of the nature of discrete particles of paraffin, is not broken down to discrete particles of paraffin by mechanical action, and has no tendency to ball up and agglomerate as do unattached discrete particles of paraffin released from the emulsified condition, and is not of such a nature as to adhere to the paper machine or machine clothing.

"I have not sufficient evidence yet to be certain of the exact nature of the action taking place or of the product thereof and I therefore have named this combination or association of carbonate filler and paraffin, whether physical or chemical or both, a 'complex.'"

Our conclusion is that the defendants' procedure does not infringe this patent, because it uses a rosin size with a small proportion of paraffin, which size is precipitated by alum in the paper stock in the beater. The carbonate filler is not added until the paper stock with the already precipitated size arives at the machine chest.

We also conclude that it was old in the art before Rafton,—to precipitate a paraffin emulsion size in paper stock by the added filler in lieu of, or before the addition of alum. The Miles Patent 1,228,580 is a reference on that

use. S. D. Warren Company used that procedure in 1926 at its plant in Maine.

We cannot find that there was any reduction to practice by Rafton of his alleged invention prior to his patent application. True, he testified that he impregnated certain samples of paper with paraffin in the spring of 1926, and thereafter at a time not specified he made paper containing carbonate by the use of a dispersion of paraffin and starch. We are not convinced by Rafton's testimony that there was any reduction to practice of this procedure by Rafton prior to his patent application.

Patent No. 1,831,928

Claims 2, 6, 9, 14, 18, 19, 22, 26, 29 and 30 are in suit. The patent relates to the use of starch in paper-making procedure for the purpose of substantially eliminating deleterious foaming in the manufacture of paper. The claims in suit are either method or product claims involving the use of starch as a foam killer in the paper-making procedure. The process disclosed is the use of starch or starch and alum with carbonate filler in any case where uncontrollable foam would be encountered if starch were omitted.

This patent is clearly void on the prior art. Starch has been used as an ingredient in paper-making for years. On this fact there is no dispute. Rafton contends that he uses starch for a new purpose, i. e., to kill foam engendered in the use of carbonate fillers, and therefore is entitled to a patent on that use or purpose. However, the discovery of a new effect is not patentable: *General Electric Company* v. *Cooper-Hewitt Electric Company,* 249 Fed. 69; *National Meter Company* v. *Neptune Meter Company,* 122 Fed. 82 (aff. 3rd Circ. 129 Fed. 124; *Kissock* v. *Duquesne Company,* 37 Fed. (2) 249 (Cert. denied 381 U. S. 749); *Dorlan* v. *Guie,* 25 Fed. 816; *In Re Kemper,* Case No. 7,687, 14 Fed. Cases 286.

Even if the patent were valid, we could not hold the defendant to be an infringer of this patent, because we are unable to find from the evidence that any uncontrollable form is produced in defendant's process of manufacture.

Patent 1,848,659

Claims 20, 21, 26, 27, 34, 35, 38, 40, 43, 48, inclusive are in suit and cover the method of using paraffin emulsions in paper-making procedure and the resultant paper product.

This patent claims to cover an improvement on Paraffin Patent 1,819,441, previously discussed herein and held invalid and not infringed.

In the procedure of Patent 1,819,441, the paraffin emulsion and filler are added to the paper-stock before alum is added. In the procedure of Patent No. 1,848,659, the emulsion and alum are added before the filler.

The application for Patent 1,819,441 was filed March 15, 1928, and for Patent 1,848,659 was filed April 8, 1929; and we find it undertaking to cover a practice which was stated in Patent 1,819,441 to be the method in the prior art. That of itself ought to estop the plaintiff from claiming any novelty in the claims of the Patent 1,848,659. As a matter of fact, the prior art does show this very procedure.

We think no further discussion of this patent is necessary. We hold it invalid for want of novelty.

A decree may be submitted for dismissal of plaintiff's bill of complaint, with costs.

Findings of Fact

1. The plaintiff is a Massachusetts corporation with its principal place of business at Andover, Mass.

2. The defendant is a Delaware corporation having its usual and regular place of business at Johnsonburg, Pa., within this District, where the alleged acts of patent infringement are charged to have taken place.

3. The plaintiff is the legal owner of the four United States Patents (Exhibit No. 1) in suit, to wit, Patents Nos. 1,803,642, issued May 5, 1931; 1,819,441, issued August 18, 1931; 1,831,928 issued November 17, 1931; and 1,848,659, issued March 8, 1932. These patents all relate to processes or procedures employed in the manufacture of paper filled with an alkaline filler such as calcium carbonate.

4. In the manufacture of paper prior to the patents in suit, the usual paper-making practice involved the following operations: beating of some form of vegetable fibers in aqueous suspension, called paper stock, thereafter diluting the stock and applying a regulated amount thereof to the surface of a screen whereby a large portion of the water drains through the screen leaving a sheet of interlacing fibers on the surface of the screen, the removal of the wet sheet so formed, pressing the sheet to expel as much as possible of the contained water and the drying of the same. During the manufacturing operation, certain materials known as sizes and fillers are added to the paper stock for the purpose of modifying the physical characteristics of the paper.

5. The apparatus of the prior art used in the manufacture of paper comprises:

(a) A beater for beating the vegetable fibers in an aqueous suspension in which the solids present range from 4 to 8 per cent of the total.

(b) A large tank called a "beater chest" that receives and stores the stock from one or more beaters.

(c) A Jordan engine, through which paper stock is continuously pumped from the beater chest, that cuts the fibers into shorter lengths.

(d) A "machine chest" in which the Jordaned stock is received and stored. The machine chest is a large tank provided with agitating equipment and normally holds a reserve of stock sufficient to keep the paper machine running for a period of one or more hours.

(e) A head box, through which paper stock is continuously pumped in a closed cycle from the machine chest, and which permits a regulated amount of the thick stock to pass on, the remainder being returned to the machine chest.

(f) The thick stock which passes on from the head box is then diluted with water down to a concentration ranging from .5 to 1.5 per cent of solid. This is called the "point of dilution."

(g) The riffle stock flows through the "riffle" which traps out sediment.

(h) The riffle transmits the stock to screens which screen out and reject oversize particles.

(i) The stock then passes into a flow box at the head of the Fourdrinier from which a regulated amount is discharged by means of a slice onto the Fourdrinier screen.

(j) The Fourdrinier consists of a continuously moving endless belt of wire screening which carries the paper stock. During the advance of the paper stock on the wire the water drains through the meshes of the screen leaving the moist paper web on the upper surface of the screen. The water thus drained is called the "white or sieve water." It is reintroduced at the point of dilution to dilute the regulated amount of thick stock which is passed on by the head box.

(k) A tubular roller called the "dandy roll" rides on the upper surface of the paper web for the purpose of rearranging the fibers and improving the formation of the sheet.

(l) As the paper web approached the limit of travel

of the Fourdrinier screen, water is forcibly sucked out of the web by means of suction boxes which contact with the under surface of the screen.

(m) At the limit of travel, the Fourdrinier screen passes over a roller called the "suction roll" which applies suction to the under surface of the screen and further reduces the water content of the paper web.

(n) When the wet web reaches the limit of travel of the Fourdrinier wire, it is continuously stripped off and carried through a series of rollers called "press rolls" which squeeze out as much as possible of the remaining moisture.

(o) After leaving the press rolls, the web is continuously carried over steam-heated rollers called the "driers" which dry the sheet.

(p) After leaving the driers, the paper may be carried through a bank of steel rollers called the "calendar stack" which improves the finish and surface of the paper by the application of pressure.

(q) Every paper machine is equipped with means to control the foam which is encountered in the manufacture of paper. These means include water sprays directed against the surface of the paper stock in the riffle, screens and flow box and include a steam spray directed against the web at the dandy roll.

6. The paper-making ingredients disclosed in the prior art are as follows:

(a) In commercial operations, various forms of vegetable fibers known as paper pulps were in general and common use, including ground wood, sulphite pulp, soda pulp, sulphate pulp and deinked old papers known as deinked old paper stock. In accordance with the knowledge and art of the paper-maker, a pulp or mixture of pulps was chosen from these materials to give the kind of paper desired at the lowest cost.

(b) Sizes are added at some point in the process for a variety of purposes including to harden the sheet, to impart stiffness and rattle, to increase retention of filler and to increase the resistance to water penetration. These sizes are added in relatively small quantities so that they form a small proportion of the finished sheet of paper.

(c) The sizing materials that were in general and common use include starch, rosin, the natural waxes and paraffin wax. Starch is not water repellent and does not impart resistance to water penetration. The other sizing materials mentioned are water repellent and if used in sufficient quantity impart resistance to water penetration. The natural waxes and paraffin wax do not impart hardness or rattle to the paper but increase the softness and smoothness of the paper.

(d) The water repellent materials must be brought into a state of emulsification, i. e., extremely fine subdivision and dispersion so that they can be properly comingled with the remainder of the paper stock. This was usually accomplished either by forming a water soluble soap from some part of the sizing material by treatment with a water soluble alkali, or if the material contained no substance of a soap forming character, by blending with soaps added for this purpose.

(e) After the emulsion was added to and commingled with the paper stock, it was broken or precipitated by the addition of some substance which destroyed the emulsion so that the fine particles of water repellent material were released in admixture with the other constituents of the paper stock. In usual practice, this step was accomplished by the addition to the paper stock of alum, i. e., aluminum sulphate.

(f) Fillers were added at some point in the process to impart to the paper opacity, whiteness and better printing qualities. Fillers were used in substantial proportions and they constituted as much as 30% of the finished paper.

(g) Fillers are materials of mineral character in very finely divided condition. The materials that were in general and common use as fillers include clay, calcium carbonate, calcium sulphate, barium sulphate, magnesium and magnesium hydroxide.

(h) Calcium carbonate is a filler material which was in commercial use. It was used with usual paper pulps, i. e., sulphate pulp and soda pulp. It was also used with the common sizing materials, such as starch and rosin size. It was also used with alum. Some of the carbonate-filled papers in books which were circulated in this country contained also the natural waxes as sizing materials.

(i) Lime sludge is a by-product material which consists essentially of calcium carbonate. The impurities present are easily removable and calcium carbonate from this source has been used as a filler in paper-making.

7. The prior art shows that the paper fibers go into the paper-making process at the beater, and that the other paper-making ingredients have been added, or proposed to be added, at every point in the process and at substantially every part of the machinery employed.

8. The TAPPI special inquiry No. 3, published in 1924, and again in 1926, discloses the addition of precipitated size containing an excess of alum at the press roll.

9. The late addition of alum in the paper-making process is disclosed by Hoffman, "Paper making", page 353 (1895).

10. The late addition of rozin size or rosin size plus alum, is disclosed in DeCew U. S. Patent 1,558,845, and DeCew Canadian Patent 256,257.

11. The late addition of alum is disclosed in DeCew U. S. Patent 1,589,947.

12. The article by Strupp & Rose in "Papier Fabricant," 1924, discloses the manufacture of a rosin-sized carbonate filled paper with addition of the carbonate filler to the paper web on the Fourdrinier screen at the first suction box.

13. The Belgian Patent to Capazza 139,073, and the British Patent to Capazza 5,776 of 1899, disclose the addition of calcium carbonate filler to the stock in the machine chest of a rosin-sized carbonate-filled paper.

14. In the defendant's process, ordinary straight calcium carbonate is used and added to the sized-paper stock at the inlet to the machine chest. The paper stock in the machine chest to which the carbonate filler is added is in thick or concentrated form. The stock containing carbonate filler remains in the machine chest for at least two hours.

15. The use of paraffin emulsions in the process of making paper was not new with the plaintiff. The Miles patent discloses the use of a paraffin emulsion with such fillers as china clay, blanc fixe, satin white, and any of the other finely comminuted mineral fillers habitually used in paper manufacture. In the Miles process, the paraffin emulsion and the filler were added to the paper stock prior to the addition of alum in the same way as in the Rafton Patent 1,819,441. Of the specific fillers mentioned by Miles, satin white is chemically the full equivalent of calcium carbonate, which is one of the finely comminuted mineral fillers habitually incorporated in paper.

16. It was well known in the art that a greater degree of sizing could be obtained with paraffin emulsions than with the commonly employed rosin sizes, and prior to 1925, paraffin emulsions had been used in the production of highly sized papers.

17. Prior to 1926 paraffin emulsions were only available in relatively dilute form, which rendered their cost of shipment expensive. In 1925 methods were developed which permitted the preparation of paraffin emulsion in a more concentrated form. In 1926 such emulsions became commercially available, and from that time have found substantial and increasing application in the paper industry.

18. These paraffin emulsions were used for the same purpose as rosin sizes, and impart to paper known characteristics.

19. In October, 1926, Sutermeister and Warren or Benson reduced to practice in laboratory experiments the method of sizing carbonate filled paper, in which the paraffin emulsion and carbonate filler were added to the paper stock, and alum was thereafter added. In January, 1927, S. D. Warren Company made sized carbonate filled paper with this process.

20. There is no evidence that Rafton conceived the process disclosed in his Patent 1,819,441 prior to the date of the application for the patent, March 15, 1928, although it does appear that on February 11, 1926, he took a finished sheet of carbonate-filled paper and applied paraffin thereto by impregnating the paper with a solution of paraffin in an organic solvent.

21. Rafton Patent No. 1,819,441 represents that in prior art-practice of adding paraffin emulsions to the paper stock and then precipitating it by alum, coarse lumps and flakes of paraffin were formed which accumulated on the paper machine and the paper-machine clothing; that Rafton overcame that difficulty by adding the paraffin emulsion and carbonate filler in the absence of alum or before the addition of alum.

22. The defendant does not follow this Rafton method, but on the contrary, it has always precipitated the sized emulsions with alum, and thereafter added the filler.

23. In fact, the formation of lumps and flakes of paraffin is not due to the manner of the use of the emulsion, but rather due to the improperly prepared emulsion itself.

24. Water repellent materials were in commercial use in the paper industry before Rafton, straight rosin sizing and paraffin being those principally employed. Rosin emulsions in the prior art had been added to the paper stock before the alum was added. Der Papier Fabricant No. 39 (1912); Wochenblatt fur Papier Fabrication No. 2, 1925.

25. Rafton Patent 1,848,659 discloses a process for the manufacture of a sized carbonate paper in which the paraffin emulsion is precipitated by alum, and then the carbonate filler is added. This is the very method asserted in Patent No. 1,819,441 to be a prior art method which produces coarse lumps and flakes of paraffin.

26. The particular paraffin emulsion of Patent No. 1,819,441 is disclosed in the prior art in Dreher British Patent 12,668 (1900); DeCew British Patent 13,588 (1915); DeCew U. S. Patent 1,174,697; the methods of precipitating such an emulsion being specifically disclosed in U. S. Patent No. 1,174,697 to DeCew.

27. Rafton Patent 1,848,659 discloses no new results, the paraffin emulsion merely operating to size the paper and the added carbonate to fill the paper.

28. The substitution of calcium carbonate for other fillers in a process in which paraffin emulsion is used is the substitution of an equivalent and was within the skill of the paper manufacturer.

29. The addition of calcium carbonate to paper stock after the addition of rosin emulsion, is old in the art, being disclosed in British Patent 124,516 (1916).

30. Plaintiff's method for manufacturing unsized paper is disclosed in Patent No. 1,848,658, and is practically identical with Patent 1,848,659 in suit, with the exception that the amount of paraffin emulsion disclosed is 1 per cent. of the combined weight of fiber and filler, whereas the amont of paraffin emulsion mentioned in the patent in suit is 2 per cent.

31. The paper manufactured by the defendant is practically unsized, the amount of size emulsion being substantially 1 per cent.

32. Patent 1,803,642 is a companion of patent with No. 1,808,070, each drawn in substantially the same terms to cover the late addition of carbonate filler precipitated by rosin size. Patent 1,803,642 being restricted to sized paper, and Patent 1,808,070 being restricted to unsized paper.

33. The prior art discloses the combination of materials referred to in Rafton Patent 1,831,928, i. e., the conjoint use of starch, or starch and alum with carbonate filler, and with the usual paper pulps in the manufacture of paper, i. e.: (a) The use of starch with carbonate filler is disclosed in: Goodwin & Seaverns U. S. Patent 161,778 (1875); Kirchner, Das Papier, pages 293, 295-6 (1922); Statham British Patent 108,783 (1917); Leicester Practical Handbook, pages 239-40 (1924); (b) the conjoint use of starch and carbonate filler was practiced in the mills of the S. D. Warren Company at Gardner, Maine; (c) the conjoint use of starch and alum with carbonate filler was practiced in the mills of the Smith Paper Company at Lee, Massachusetts; (d) hundreds of books have been sold in the country in which the paper contained the usual pulps, carbonate filler, starch, and an aluminum compound resulting from alum used in the process of manufacture.

34. Starch was used in the manufacture of paper for the following purposes, among others:

(a) To strengthen the paper:
(b) To give the paper a better touch.
(c) To prevent dusting of mineral fillers contained in the paper.
(d) To diminish losses of mineral fillers, i. e., to inhibit their escape in the waste water as the web is formed.
(e) To enhance the efficiency imparted by rosin size.
(f) To improve the formation of the paper.
(g) To increase the amount of filler that may be successfully incorporated in the paper.
(h) To bind the fibers.
(i) To harden the paper.
(j) To impart snap and rattle to the paper.

35. Starch fulfilled these purposes irrespective of the type of filler used.

36. The amount of starch disclosed in Patent 1,831,928, i. e., ranges from 1.9 to 4.2 per cent.; falls squarely within the range of the prior art disclosure with a range between 1 and 6 per cent. of the weight of the paper.

37. Defendant used starch and alum at a time when it was using only clay-filler in its paper. The starch was used to strengthen its sheet and to make it possible to use more filler; the alum was used to precipitate the size. When the defendant substituted some carbonate filler for part of the clay filler, the use of starch and alum was continued in the same manner as theretofore, the same filler-starch ratio being used.

38. In the defendant's process, the absence of starch would not be accompanied by uncontrollable foam.

Conclusions of Law

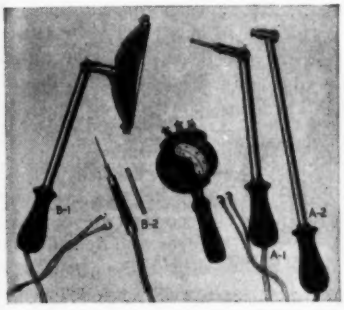
1. None of the claims of the patents in suit are valid claims.

2. The defendant does not infringe any of the claims of any of the patents in suit.

3. The plaintiff's bill of complaint should be dismissed, with the costs to the defendant.

Improved Surface Pyrometer

Accurate knowledge of surface temperatures of production machinery has proven to be helpful in improving the quality of product, lowering costs and eliminating or reducing waste and spoilage. In many industries, including the paper industry, the determining of surface temperatures is of great importance.



Pyro surface pyrometers are self-contained, portable, compact, quick-acting, accurate and scientifically designed precision instruments for curved or flat, stationary or moving surfaces, suitable for any size roll or flat surface. Since surface pyrometers are very often used under trying plant condition, the operator is often handicapped while making a proper contact and attempting at the same time to determine the actual temperature indication, whether due to his position, insufficient light or other surroundings. To overcome these handicaps, often the cause of faulty readings and involving loss of time and money, the Pyrometer Instrument Company has produced surface pyrometer instruments in which contact and reading of actual temperatures no longer have to be made simultaneously.

In view of the great variety of applications of surface pyrometers in various industries, the Pyrometer Instrument Company has developed a combined instrument as shown in the illustration, combining one indicator with four different types of surface and needle pyrometer elements.

In the illustration, Type A1 is designed rapidly and accurately to determine the temperature of molds used in the manufacture of Bakelite or any other plastic or semi-plastic material or any other surface where small thermocouple contact is required. Type A2 is the offset handle type for flat surfaces. Type B1 is for determining surface temperatures of stationary or moving rolls. Type B2 is a needle pyrometer used extensively for determining quickly and accurately the inside temperatures of various materials in plastic state during certain operations.

Information as to the specific application of improved Pyro surface pyrometers in the paper industry may be obtained from the manufacturers.

Champion Paper & Fibre Report

[FROM OUR REGULAR CORRESPONDENT]

DAYTON, Ohio, April 27, 1936—The Champion Paper and Fibre Company of Hamilton reports consolidated net income amounting to $821,936 for the 40 weeks ended February 2 last. The sales aggregated $14,592,171 for the period.

The earnings are equivalent to approximately $1.15 a share on 476,000 common shares then outstanding, after deduction of $270,000 for nine months dividends on 60,000 shares of preferred.

However, both common and preferred shares have been increased since February 2.

The report for the comparable period of last year is not available.

For the fiscal year ended April 28, 1935, the company reported the net income amounted to $981,968.

New Beach-Russ High Vacuum Pump

The New Beach-Russ Two-Stage Integral Type High Vacuum Pump, manufactured by the Beach-Russ Company, 50 Church street, New York, is the natural result of extensive experience in meeting all high vacuum requirements. For chemical and kindred processes where there is likelihood of moisture content, as in distillation, evaporation, vacuum filtering, drying, moulding, etc., this pump has been guaranteed to maintain vacuum within 1 M.M. of absolute. It is tested for a vacuum of 1/10 M.M. of absolute.

For chemical and allied plant service, this pump is equipped with the new Beach-Russ Water-Oil separator which collects and discharges all accumulated water without affecting the vacuum produced. It is built of any required metal to resist corrosion and is constructed without valves, gears or springs to eliminate the principal trouble spot in process work.

In this pump the two cylinders are cast integral. Connecting piping and fittings are not required. Thus the tendency toward leakage between the first and second stages of vacuum are not required. Moreover a great deal of floor space is saved by the compact pump design. It is equipped with automatic lubrication and runs quietly. This pump is made for capacities of 8, 15, 30, 55, 100 and 200 cubic feet per minute. Larger sizes are built to meet special requirements.

Bristol Issues New Catalog

The Bristol Company, Waterbury, Conn., announces the publication of a new thermometer catalog, containing 88 pages of timely and useful information concerning the theory and practice of modern-day thermometry. This catalog, No. 1250, covers Liquid-Filled, Vapor-Tension, and Gas Filled Recording, Indicating, and Controlling Thermometers. It also describes a new interesting Small-Bulb Gas-Filled Thermometer. In connection with Automatic Temperature Controllers, it gives information regarding both the electric and pneumatic types, and helpful sketches to illustrate how they are applied. As an addition to this, application data is given on industrial stem thermometers, resistance thermometers, humidity measuring instruments, control valves, time-temperature controllers and the accessories that are used with thermometers on industrial applications. In order to enhance the value of the catalog as an engineering hand book, over 500 temperature recording charts, the most complete listing ever published, are illustrated in full size.

This catalog, printed in the form of an engineering reference book, was published at the urgent request of many of the thousands of users of Bristol's Recording and Controlling Thermometers who have felt the need of more complete information on the important subject of managing temperature in industrial appliances.

Crystal Tissue Co. Makes Good Report

[FROM OUR REGULAR CORRESPONDENT]

DAYTON, Ohio, April 27, 1936—The Crystal Tissue Company of Middletown reports a net income of $17,576 for the three months ended March 31, compared with $12,600 in the first quarter of 1935.

The profit for the period increased earned surplus on March 31 to $265,349. The net sales for the period were $321,340 against sales of $328,766 in the first quarter of 1935. Cost of goods sold, including depreciation, declined $15,430, to $263,662.

Research on Lithographic Papers

For more than five years a program of research on lithographic paper problems has been carried on through the co-operative efforts of the National Bureau of Standards and the Lithographic Technical Foundation. For the past two years the Foundation has been enabled to maintain a research associate at the Bureau of Standards through the generosity of interested paper manufacturers. The annual meeting of the Advisory Committee for this work was held in New York, February 17, to review the results of the past year's research and to discuss the future research program.

Up to the present time three reports have been published covering the studies made at the Bureau of Standards. These reports covered respectively the physical and mechanical causes of misregister in offset lithography, the effects of variations in humidity and temperature on the moisture content and dimensions of lithographic papers, and the relation of fiber treatment and sheet structure to register in offset lithography.

C. G. Weber, of the Bureau of Standards, made a report outlining the work done since 1930 and giving a detailed account of accomplishments during the past year. A study was made of the relation of the hygrometric condition of papers at the beginning of a multi-color job to changes in moisture content during the successive printings, and ot misregister. Experimental multicolor printings were made on papers in various hygrometric conditions relative to the surrounding air and the behavior during the successive printings was determined by measuring changes in moisture content, distortion during the impression, and closeness of register obtained. It was found that papers conditioned to equilibrium with the pressroom atmosphere by the usual method expanded during the first few printings so that succeeding colors printed inside the first. However, it was found possible to maintain practically constant dimensions by two methods of conditioning. Papers conditioned first at a high relative humidity, then to equilibrium with the pressroom atmosphere by desorption gave good results. Also, papers prepared for printing by conditioning to equilibrium with a relative humidity 5 to 8 per cent above the pressroom condition gave satisfactory register. All dimension changes during the printings were accounted for by changes in moisture content of the paper. No evidences of mechanical stretch were found.

A detailed report of this work has been prepared and appeared as Bureau of Standards Research Paper No. 859, "The Treatment of Offset Papers for Optimum Register," in the February, 1936, issue of the *National Bureau of Standards Journal of Research.* Reprints are available from the Superintendent of Documents, Washington, D. C., at 5 cents per copy. This report is illustrated with graphs showing the influence of hygrometric condition of paper on dimensional changes during printing and on the register obtianed. Use of the sword type of paper hygroscope, patented and sold by the Lithographic Technical Foundation, in indicating the paper condition is also illustrated .

It was also reported that the Lithographic Technical Foundation has developed a practical Register Rule similar to the rule described in Bureau of Standards Research Paper No. 480, which is soon to be made available commerically. This rule is a valuable instrument for detecting sheet distortion by the printing impression and enabling its elimination before printing the first color, thereby avoiding much subsequent misregister.

New Design Portable Thermometer

The accompanying illustration shows at a glance the improvement that has been made in this type of recording thermometer; the sensitive element (bulb) has been located where it will respond quickly and accurately to changes in the surrounding temperature.

Mounted out in the clear, the mercury-filled bulb is subjected to the natural air currents and, therefore, records true temperatures. The new design also results in greater sensitivity since the measuring system is in no way affected by the temperature of the instrument case. This is important since many portable thermometers have the bulb mounted in such a way that the bulb is subjected to the temperature of the instrument case. Due to the large mass of metal, it is easy to see why such construction makes such an instrument extremely sluggish.

In addition to the above improvements, which result in greater accuracy and sensitivity, the Brown Self-Contained Portable Thermometer is built to withstand the rough handling that must be expected under conditions were portable instruments are used. The metal handle and metal legs are practical and sturdy. The black-enameled, die-cast aluminum case is light in weight and corrosion resistant—an ideal combination for a portable instrument. The completely gasketed door is moisture-proof and the door-in-handle lock is tamper-proof.

Brown Portable Thermometers are used extensively wherever correct atmospheric temperatures are essential for comfort or manufacturing to promote efficiency and improved products. The permanent, easily read temperature record which is produced on a large 8-inch 24-hour chart, eliminates all guess-work.

Additional information may be obtained from the Brown Instrument Company, Wayne Junction, Philadelphia, Pa.

2-Story Addition for Cut-Rite Waxed Paper

Announcement has been made by the R. B. Davis Company of Hoboken, N. J., that the two-story addition to their Cut-Rite Waxed Paper plant is rapidly nearing completion.

The first Cut-Rite plant was erected three years ago. As the sales of Cut-Rite Waxed Paper mounted steadily, it became increasingly evident that the factory must be enlarged to meet all the orders.

The Cut-Rite plant is completely modern in every sense of the word. Impressive as its brick and iron construction is, the most striking part of this modern manufacturing unit is the thousands of bright windows on the sides. The plant is equipped with a modern heating and ventilating system, several elevators, railroad siding, an unusually efficient conveyor system, new and up-to-the-minute machinery.

Although Cut-Rite Waxed Paper is a comparatively new product, having been on the market for only six years, it has already established itself as a favorite among thousands of people. Sales have mounted year after year, right through the depression. It is predicted that the sales of Cut-Rite Waxed Paper will increase many times over during the next few years.

IMPORTS OF PAPER AND PAPER STOCK

NEW YORK, BOSTON, PHILADELPHIA AND OTHER PORTS

NEW YORK IMPORTS

WEEK ENDING APRIL 25, 1936

CIGARETTE PAPER

Standard Products Corp., *American Merchant,* Havre, 24 cs.; De Mauduit Paper Corp., *American Merchant,* Havre, 175 cs.; Chase National Bank, *American Merchant,* Havre, 55 cs.; Champagne Paper Corp., *Ile de France,* Havre, 852 cs.; Standard Products Corp., *Ile de France,* Havre, 40 cs.

WALLPAPER

Davies Turner & Co., *Stavangerfjord,* Oslo, 9 pkgs.; Meadows Wye & Co., *Bremen,* Bremen, 3 bls.

WALL BOARD

Johaneson Wales & Sparre, Inc., *Blankaholm,* Gothenburg, 138 bdls.; Treetex Corp., *Scanstates,* Stockholm, 3890 bdls.

PAPER HANGINGS

W. H. S. Lloyd & Co., *American Merchant,* London, 3 bls.

NEWS PRINT

International Paper Co., *Humberarm,* Dalhousie, 8751 rolls; Walker Goulard Plehn Co., *Argosy,* Helsingfors, 97 rolls; Jay Madden Corp., *Argosy,* Helsingfors, 911 rolls; N. Y. Times, *Markland,* Liverpool, N. S., 561 rolls; N. Y. Tribune, *Markland,* Liverpool, N. S., 1508 rolls; World Telegram, *Markland,* Liverpool, N. S., 595 rolls; Bridgeport Herald Corp., *Markland,* Liverpool, N. S., 61 rolls; Brooklyn Daily Eagle, *Markland,* Liverpool, N. S., 337 rolls; Clinton Paper Co., *Markland,* Liverpool, N. S., 806 rolls; ———, *Stavangerfjord,* Oslo, 328 rolls; Walker Goulard Plehn Co., *Scanstates,* Helsingfors, 39 bls.; Brooklyn Times, *Malaren,* Norrkoeping, 329 rolls; Gilman Paper Co., *Malaren,* Norrkoeping, 486 rolls; Lunham & Reeve, *Malaren,* Helsingfors, 234 rolls; Jay Madden Corp., *Malaren,* Helsingfors, 277 rolls; Perkins Goodwin & Co., *New York,* Hamburg, 312 rolls; Jay Madden Corp., *Pr. Harding,* Hamburg, 230 rolls.

PRINTING PAPER

Jay Madden Corp., *Argosy,* Helsingfors, 23 bls., 77 rolls; L. A. Consmiller, *Bremen,* Bremen, 10 cs.

PACKING PAPER

A. J. Bullinger, *Black Eagle,* Rotterdam, 11 cs.

WRAPPING PAPER

Jay Madden Corp., *Scanstates,* Helsingfors, 356 rolls; Lincoln Import Specialties Corp., *Blankaholm,* Gothenburg, 61 rolls; National Pulp & Paper Co. Inc., *Blankaholm,* Gothenburg, 441 rolls; ———, *New York,* Hamburg, 13 cs.

KRAFT PAPER

L. Glickman & Co., *Blankaholm,* Gothenburg, 1346 rolls.

FILTER COMPOUND

A. W. Fenton, Co., *New York,* Hamburg, 100 bls.

FILTER PAPER

H. Reeve Angel & Co. Inc., *American Merchant,* London, 11 cs.; H. Reeve Angel & Co. Inc., *Berengaria,* Southampton, 10 bls., 9 cs.; J. Manheimer, *Berengaria,* Southampton, 78 bls.

DRAWING PAPER

H. Reeve Angel & Co. Inc., *American Merchant,* London, 2 cs.

BASIC PAPER

Dingelstedt & Co., *Bremen,* Bremen, 5 cs.

METAL PAPER

K. Pauli Co., *New York,* Hamburg, 36 cs.

SURFACE COATED PAPER

C. Happel, *New York,* Hamburg, 154 cs.

TRACING PAPER

———, *Bremen,* Bremen, 7 cs.

DECALCOMANIA PAPER

B. F. Drakenfeld & Co., *Scythia,* Liverpool, 12 cs. (simplex); 3 cs. (duplex).

DECALCOMANIAS

Sellers Transportation Co., *Bremen,* Bremen, 9 cs.

TISSUE PAPER

B. F. Drakenfeld & Co., *Scythia,* Liverpool, 4 cs.

LITHO PAPER

———, *Nojima Maru,* Hong Kong, 10 cs.

WAXED PAPER

J. H. Faunce, Inc., *American Merchant,* London, 214 ctns.

COLORED PAPER

Papyrus Papeteries, Inc., *Bremen,* Bremen, 1 cs.

ENVELOPES

Papyrus Papeteries, Inc., *Bremen,* Bremen, 1 cs.

PASTE BOARD

Fibre Case & Novelty Co., *Pr. Harding,* Hamburg, 24 bls.

PAPER BOARDS

C. H. Powell Co., *Blankaholm,* Gothenburg, 13 bls. Salven Paper Co., *Blankaholm,* Gothenburg, 6 bls.

PAPER TUBES

———, *New York,* Hamburg, 26 pkgs.

MISCELLANEOUS PAPER

———, *Nojima Maru,* Yokohama, 9 cs.; National City Bank, *Nojima Maru,* Yokohama, 6 cs.; Moller Products Co., *Kinugasa Maru,* Yokohama, 6 cs.; Almo Trading & Importing Co., *Ile de France,* Havre, 11 cs.; Coty Processing Co., *Ile de France,* Havre, 4 cs.; ———, *Ile de France,* Havre, 18 cs.; National Pulp & Paper Co., Inc., *Blankaholm,* Gothenburg, 1152 rolls; ———, *New York,* Hamburg, 268 rolls; Jay Madden Corp., *New York,* Hamburg, 10 bbls.; Meadows Wye & Co., *New York,* Hamburg, 17 bbls.

RAGS, BAGGINGS, ETC.

S. Shapiro & Son, *Argosy,* Gdynia, 72 bls. rags; ———, *Ingria,* Seville, 239 bls. rags; Irving Trust Co., *Ingria,* Barcelona, 123 bls. rags; ———, *Ingria,* Barcelona, 100 bls. cotton waste; Bank of N. Y. Trust Co., *Ingria,* Barcelona, 78 bls. rags, 77 bls. old cottons; 23 bls. new cuttings; 122 bls. bagging; E. J. Keller Co., Inc., *Ingria,* ———, 423 bls. paper stock; 31 bls. bagging; ———, *American Merchant,* Havre, 214 bls. rags; ———, *American Merchant,* London, 33 bls. rags; W. Steck & Co., *Black Eagle,* Rotterdam, 58 bls. bagging; Irving Trust Co., *Pr. Polk,* Bombay, 128 bls. bagging; Alexander Jacob & Co., *Pr. Polk,* Bombay, 172 bls. bagging; E. J. Keller Co., Inc., *Pr. Polk,* ———, 174 bls. rags, 238 bls. bagging; E. J. Keller Co., Inc., *Gerolstein,* ———, 114 bls. bagging; Banco Coml. Italiane Trust Co., *Gerolstein,* Antwerp, 128 bls. jute waste; E. J. Keller Co., Inc., *Black Hawk,* ———, 210 bls. bagging, 69 bls. rags; ———, *Black Hawk,* Antwerp, 11 bls. rags; J. W. Heisley Co., *Black Hawk,* Antwerp, 92 bls. rags; G. W. Millar & Co., Inc., *Black Hawk,* Antwerp, 102 bls. rags; Irving Trust Co., *Black Hawk,* Antwerp, 60 bls rags, 53 bls. bagging; Katzenstein & Keene, *Exporter,* Barcelona, 128 bls. bagging; 571 bls. dark cottons; N. Y. Trust Co., *Exporter,* Barcelona, 324 bls. rags; ———, *Exporter,* Barcelona, 562 bls. rags, 58 bls. dark cottons, 176 bls. bagging; E. J. Keller Co., Inc., *Exporter,* ———, 295 bls. rags; Great Eastern Packing & Paperstock Corp., *Binnendyk,* Rotterdam, 93 bls. bagging; ———, *Winona County,* Liverpool, 15 bls. bagging; A. W. Fenton, Inc., *Winona County,* Manchester(12 bls. rags; ———, *Pr. Harding,* Hamburg, 104 bls. rags, Manufacturers Trust Co., *American Shipper,* Manchester, 83 bls. old strings; E. J. Keller Co., Inc., *Motomar,* ———, 246 bls. paper stock; E. J. Keller Co., Inc., *Pan America,* ———, 77 bls. paper stock; E. J. Keller Co., Inc., *Deutschland,* ———, 250 bls. paper stock.

GLUE STOCK

Great Eastern Packing & Paperstock Corp., *Dagrun,* Buenos Ayres, 226 bls. hide cuttings; ———, *Winona County,* Liverpool, 184 bags hide pieces.

OLD ROPE

G. W. Millar & Co., Inc., *American Merchant,* London, 80 coils; W. Steck & Co., *Binnendyk,* Rotterdam, 115 coils.

CASEIN

American British Chemical Supplies, *Ile de France,* Havre, 716 bags; ———, *Ile de France,* Havre, 1226 bags; ———, *Black Hawk,* Antwerp, 353 bags; American British Chemical Supplies, *Black Hawk,* Antwerp, 354 bags; T. M. Duche & Sons, *Pan America,* Buenos Ayres, 834 bags; ———, *Pan America,* Buenos Ayres, 1035 bags.

WOOD PULP

Castle & Overton, Inc., *Argosy,* Helsingfors, 398 bls. sulphite, 79 tons; Lagerloef Trading Co., *Argosy,* Helsingfors, 3703 bls. sulphite, 683 tons; 1200 bls. sulphate, 208 tons; Bulkley Dunton & Co., *Tyr,* ———, 700 bls. sulphite 123 tons; The Borregaard Co., Inc., *Stavangerfjord,* Sarpsborg, 1008 bls. sulphate; J. Andersen & Co., *Stavangerfjord,* Oslo, 2000 bls. sulphite; Lagerloef Trading Co., *Scanstates,* Helsingfors, 1765 bls. mechanical, 353 tons; 630 bls. sulphate, 105 tons; 770 bls. sulphite, 130 tons; Castle & Overton, Inc., *Malaren,* Helsingfors, 273 bls. sulphite, Lagerloef Trading Co., *Malaren,* Helsingfors, 390 bls. mechanical pulp; 476 bls. sulphate; 470 bls. sulphite; Perkins Goodwin & Co., *Blankaholm,* Gothenburg, 394 bls. sulphate; 1270 bls. kraft pulp; D. M. Hicks, Inc., *Blankaholm,* Gothenburg, 210 bls. sulphite; E. M. Sergeant Pulp & Chemical Co., Inc., *Blankaholm,* Gothenburg, 748 bls. kraft soda pulp; Gottesman & Co., Inc., *Blankaholm,* Gothenburg, 500 bls. sulphite; N. Y. Trust Co., *Binnendyk,* Rotterdam, 460 bls. wood pulp; G. H. McFadden & Bro., *New York,* Hamburg, 280 bls. wood pulp, 56 tons; Castle & Overton, Inc., *New York,* Hamburg, 1600 bls. wood pulp, 320 tons; Perkins Goodwin & Co., *New York,* Hamburg, 450 bls. sulphate; ———, *Pr. Harding,* Hamburg, 118 bls. wood pulp, 12 tons.

WOOD PULP BOARDS

Jay Madden Corp., *Argosy,* Helsingfors, 157 rolls, 45 tons; Jay Madden Corp., *Scanstates,* Helsingfors, 162 bls. 51 rolls; Jay Madden Corp., *Malaren,* Helsingfors, 194 rolls, 228 bls.; ———, *Malaren,* Helsingfors, 391 rolls.

WOOD PULP SHEETS

———, *New York,* Hamburg, 60 bls.

ALBANY IMPORTS

WEEK ENDING APRIL 25, 1936

———, *Tyr,* Port Alice, B. C., 4180 bls. sulphite, 735 tons; ———, *Binnendyk,* Rotterdam, 2400 bls. wood pulp.

NEW LONDON IMPORTS

WEEK ENDING APRIL 25, 1936

Gottesman & Co., Inc., *Blankaholm,* Halmstad, 2500 bls. sulphite.

BOSTON IMPORTS

WEEK ENDING APRIL 25, 1936

G. F. Malcolm, Inc., *Scythia,* Liverpool, 9 cs. tissue paper; The Borregaard Co., Inc., *Blankaholm,* Gothenburg, 500 bls. chemical pulp; Gottesman & Co., Inc., *Blankaholm,* Halmstad, 2800 bls. sulphite; Atterbury Bros., Inc., *Blankaholm,* Helsingfors, 180 bls. mechanical pulp; Lagerloef Trading Co., *Blankaholm,* Helsingfors, 7867 bls. sulphate; 2196 bls. sulphite; J. Carter & Co., Inc., *Blankaholm,* Helsingfors, 34 bls. newsprint; Jay Madden Corp., *Blankaholm,* Helsingfors, 304 rolls newsprint; Gottesman & Co., Inc., *Lucia C.,* Czecho-Slovakia, 532 bls. wood pulp; Bulkley Dunton & Co., Kolsnaren, ———, 1700 bls. wood pulp.

PHILADELPHIA IMPORTS

WEEK ENDING APRIL 25, 1936

J. W. Hampton, Jr., Co., *Argosy,* Helsingfors, 496 rolls newsprint; E. J. Keller Co., Inc., *Ingria,* ———, 954 bls. rags; Castle & Overton, Inc., *Ingria,* Marseilles, 228 bls. rags; R. Blank, *Ingria,* Marseilles, 58 bls. rags; J. W. Hampton, Jr., Co., *Scanstates,* Helsingfors, 398 rolls newsprint; W. F. Sherwood & Son, *Black Eagle,* Rotterdam, 321 bls. rags; E. Butterworth & Co., Inc., *Black Eagle,* Antwerp, 94 bls. rags; Castle & Overton, Inc., *Black Eagle,* Antwerp, 86 bls. rags; ———, *Black Eagle,* Antwerp, 74 bls. rags; E. J. Keller Co., Inc., *Black Eagle,* ———, 608 bls. rags; E. J. Keller Co., Inc., *Exporter,* ———, 162 bls. rags; ———, *Exporter,* Barcelona, 125 bls. rags; Chase National Bank, *Winona County,* Glasgow, 100 bls. dark cottons; ———, *Winona County,* Belfast, 48 coils old rope; E. Butterworth & Co., Inc., *Winona County,* Manchester, 59 bls. rags.

CAMDEN IMPORTS

WEEK ENDING APRIL 25, 1936

Lagerloef Trading Co., *Argosy,* Helsingfors, 7858 bls. sulphate, 1429 tons.

WILMINGTON IMPORTS

WEEK ENDING APRIL 25, 1936

Lagerloef Trading Co., *Scanstates,* Helsingfors, 4108 bls. sulphite, 821 tons; E. J. Keller Co., Inc., *Cliffwood,* ———, 1342 bls. wood pulp.

New York Market Review

Office of the PAPER TRADE JOURNAL,
Wednesday, April 29, 1936.

Steadiness prevails in the local paper market. Demand for the various standard grades of paper is fairly active. Supplies are moving into consumption more freely than of late. Sales forces of the leading paper organizations express confidence in the future trend of the industry. Prices are generally holding to previously quoted levels.

The position of the newsprint paper market is improving. Demand from the newspaper publishers is running ahead of last year and manufacturing operations in the United States, Canada and Newfoundland has been speeded up to take care of current requirements. The outlook for better prices, also, is more promising than for some time past.

Sentiment in the fine paper market is optimistic. Demand for book and writing papers is persistent. Prices are steady to firm. Tissues continue to move in good volume. The coarse paper market is more buoyant and summer specialties are arousing more interest. Demand for the various grades of paper board is fairly brisk.

Mechanical Pulp

The ground wood pulp market is exhibiting a fairly strong undertone. Production in the United States, Canada and abroad is practically keyed to consumption and the statistical position of the industry is considered sound, in most quarters. Stocks at the mills are not excessive. Prices are holding to schedule, in most instances.

Chemical Pulp

Conditions in the chemical pulp market are satisfactory, considering the various factors involved. Bleached sulphite pulp and kraft pulp continue particularly strong. Due to the limited offerings of other grades, greater paper mill interest has developed in unbleached sulphite pulp, especially the bleachable grades. Prices are firmer.

Old Rope and Bagging

The old rope market is displaying strength. Paper mill demand for domestic and imported old manila rope is slightly better. Small mixed rope is moving in fairly heavy volume for the season. Old rope prices are firmer. No radical changes were reported in the bagging market. Scrap, gunny and roofing bagging are attracting interest.

Rags

Demand for the various grades of domestic rags is fairly heavy. New rags are attracting more mill interest. No. 1 white shirt cuttings are in excellent request, both for home consumption and for export. Roofing grades are moving into consumption at a steady pace. The imported rag market is moderately active. Prices are mostly nominal.

Waste Paper

The paper stock market is softer. Prices of the lower grades have declined slightly. No. 1 mixed paper is now offered at .20 to .25 and strictly folded news at 32½ to 37½, f.o.b. New York. No. 1 white news is selling at 1.30 to 1.40. The higher grades of waste paper are pursuing the even tenor of their way. Prices are generally holding to schedule.

Twine

Although demand for the various varieties of twine is once again along routine lines, the prospects for the future are encouraging. Supplies are moving into consumption in fairly good volume for the time of year. While competition for desirable orders is intense, prices are generally steady and unchanged.

Holyoke Power Co. Loses Currency Case

[FROM OUR REGULAR CORRESPONDENT]

BOSTON, Mass., April 21—The Holyoke Water Power Company lost its attempt to force the American Writing Paper Company, Inc., to pay mill power rentals in depreciated currency at old gold valuations in the United States Circuit Court of Appeals. The decision was given recently.

The decision means that on the indentures at issue the power company will have to accept $20,887 as payment in new deal currency, rather than the $32,034 being sought. Sweeping aside questions of constitutionality of the administration's manipulation of gold prices and the gold content of currency, the court comes to the point in the settlement that: "These proceedings are for the purpose of ascertaining the amount due as an equivalent in currency, the payment of which should be in full discharge of the obligation."

The court selects as typical of the indentures in dispute one made March 1, 1895. "It is true," the court says, "that if under the typical indenture the petitioner was paid 80,625 ounces of gold, nine-tenths fine, the equivalent in currency would be approximately $2539.69, while if the obligation were discharged dollar for dollar, it would receive only $1500 in depreciated currency."

The court argues that the water power company is not the only individual or interest affected by gold manipulations. It cites the salary of wage earners, payment of interest on bonds, stock dividends and other payments of indebtedness, all of which are made at this time in depreciated currency.

"We think," says the court, "that the rentals in these indentures may be discharged by the payment dollar for dollar of the amount which the quantity of gold named therein equals in gold coin of the weight and fineness of the years specified in each indenture." Taking the indenture of March 1, 1895, as typical, the court directs that payment be made at the rate of $1500 in depreciated currency for each indenture.

The indentures at issue dated back far into the 19th century. Rentals of water power units were payable in gold. The power company insisted on gold payments or an equivalent, which would have boosted the rentals heavily.

Miscellaneous Markets

Office of the PAPER TRADE JOURNAL,
Wednesday, April 29, 1936.

BLANC FIXE.—The position of the blanc fixe market is unchanged. Prices are generally maintained at formerly quoted levels. The pulp is selling at $42.50 to $45 per ton, in bulk; while the powder is offered at 3½ to 3¾ cents per pound, in barrels, at works.

BLEACHING POWDER.—Conditions in the bleaching powder market are fairly satisfactory. The contract movement is normal for the time of year. Prices are holding to schedule. Bleaching powder is quoted at $2 to $2.25 per 100 pounds, in drums, at works.

CASEIN.—The casein market is easier. Domestic standard ground is quoted at 14½ and finely ground at 15; Argentine and French standard ground at 14 and finely ground at 14¼ cents per pound, in bags, car lot quantities.

CAUSTIC SODA.—Paper mill demand for caustic soda is fairly persistent. The contract movement is well up to average. Solid caustic soda is quoted at $2.55 to $2.60; while the flake and ground are selling at $2.95 to $3 per 100 pounds, in drums, at works.

CHINA CLAY.—The china clay market is exhibiting a strong undertone. Shipments against contract are moving freely. Imported china clay is quoted at $13.50 to $21 per ton, ship side; while domestic paper making clay is selling at $6.50 to $12 per ton, at works.

CHLORINE.—Steadiness prevails in the chlorine market. Demand from the paper mills is brisk. The contract movement is fairly heavy. Prices are holding to formerly quoted levels. Chlorine is selling at $2.15 to $2.25 per 100 pounds, in tank cars, at works.

ROSIN.—The rosin market is little changed. Paper making gum rosin is quoted at $4.45 and wood rosin at $4.35 per 280 pounds, gross weight, in barrels, at Savannah. Seventy per cent rosin size is selling at $2.58½ per 100 pounds, in tank cars, at works.

SALT CAKE—Demand for salt cake is quite active. The contract movement is regular. Prices are steady. Salt cake is quoted at $12 to $13; chrome salt cake at $11 to $12 per ton, at works. Imported salt cake is selling at $12 to $13 per ton, at mine.

SODA ASH.—The soda ash market is displaying strength. Supplies are moving into consumption freely. Prices are steady to firm. Quotations on soda ash, in car lots, at works, per 100 pounds, are as follows: in bulk, $1.05; in bags, $1.20; and in barrels, $1.50.

STARCH.—Business in the starch market is fairly active. The prevailing demand from the paper mills is routine. Prices are slightly firmer. Special paper making starch is quoted at $3.20 per 100 pounds, in bags; and at $3.47 per 100 pounds, in barrels, at works.

SULPHUR.—The sulphur market is steady. Yearly contracts are quoted at $18 per ton, in bulk, on orders of 1,000 tons, or over, and $20 on smaller quantities. On spot and nearby carloads the quotation is $21 per ton. All quotations are in car lots, at works.

SULPHATE OF ALUMINA.—The sulphate of alumina market is fairly buoyant. Demand from the paper mills is insistent. Prices are holding to schedule. Commercial grades are quoted at $1.35 to $1.60; and iron free at $2 to $2.25 per 100 pounds, in bags, at works.

TALC.—Trading in the talc market is rather light at present. Supplies are moving into consumption slowly. Prices remain unchanged. Domestic talc is quoted at $16 to $18 per ton, at eastern mines; while imported talc is selling at $23 to $30 per ton, on dock.

Market Quotations

Paper

Rag Content Bond & Ledgers— Delivered Zone 1	Bonds	Ledgers
100% Rag Ext. No. 1	.36	.37
100% Rag	.28	.29
75% Rag	.21	.22
65% Rag	.18	.19
50% Rag	.15	.16
25% Rag	.12½	.13½

Sulphite Bond & Ledgers— Delivered Zone 1	Bonds	Ledgers
No. 1 Sulphite	7.75	8.75
No. 2 Sulphite	6.75	7.75
No. 3 Sulphite	6.00	7.00
No. 4 Sulphite	5.50	6.50

Book, Cased—		
S. & S. C.	5.35 @	5.75
S. & S. C. Litho.	5.60 @	6.00
M. F.	5.10 @	5.50
Coated and Enamel	5.90 @	6.55
Coated Litho	5.90 @	6.55
Tissues—Per Ream—		
White No. 1	.82½ @	—
White No. 1 M. G.	.77½ @	—
White No. 1½	.62½ @	—
White No. 2	.60 @	—
Anti-Tarnish M. G.	.67½ @	—
Colored	.80 @	—
Kraft	.67½ @	—
Manila	.60 @	—
Unbleached Toilet	2.60 @	3.30
Bleached Toilet	3.94 @	5.26
Paper Towels—		
Unbleached	2.10 @	3.35
Bleached	3.30 @	3.70
Manila—		
No. 1 Jute	9.00 @	9.25
No. 2 Jute	7.75 @	8.50
No. 1 Wood	4.00 @	5.25
No. 2 Wood	3.50 @	4.00
Fibre Papers—		
No. 1 Fibre	4.25 @	5.50
No. 2 Fibre	4.00 @	4.75

(Delivered New York)

News, per ton—		
Roll, contract	41.00 @	—
Sheets	46.00 @	—
Kraft—		
No. 1 Northern	4.12½ @	4.75
Standard	4.00 @	—
Southern	3.87½ @	—
Boards—per ton—		
News	32.50 @	35.00
Chip	32.50 @	35.00
Sgl. Mla. Ll. Chip	45.00 @	47.50
Jute Lined Chip	42.50 @	45.00
Kraft Liners	60.00 @	62.50
White Pat. Coated	55.00 @	57.50
Binders Boards	67.00 @	75.00

Mechanical Pulp

(On Dock, Atlantic Ports)

No. 1 Imported—		
Moist	23.00 @	24.00
Dry	23.00 @	24.00

(Delivered)

No. 1 Domestic and Canadian	27.00 @	28.00

Chemical Pulp

(On Dock, Atlantic, Gulf and West Coast Ports)

Bleached Sulphite (Domestic and Foreign)—		
Division 1	2.60 @	2.90
Division 2	2.55 @	—*
Division 3	2.50 @	—*
Prime Qualities—		
Class 1. All Prime Easy Bleaching	2.05 @	—*
Other Than Easy Bleaching—		
Class 2. Higher than Standard	2.00 @	—*
Class 3, Standard	1.95 @	—*
Class 4, Lower than Standard	1.90 @	—*

(On Dock, Atlantic Ports)

Kraft No. 1	1.85 @	2.00
Kraft No. 2	1.70 @	1.80

(F. o. b. Pulp Mill)

Kraft Domestic	1.80 @	1.90

(Delivered)

Soda Bleached	2.60 @	—

* Add 60 Cents per short ton, dock charges, for Albany; $2.00 for Lake Ports East and $3.00 for Lake Ports West of Mackinac Straits.

Domestic Rags

New Rags

(Prices to Mill f. o. b. N. Y.)

Shirt Cuttings—		
New White, No. 1	8.00 @	8.15
Silesias No. 1	5.50 @	5.75
New Unbleached	8.25 @	8.50
New Soft Blacks	3.75 @	4.00
Blue Overall	5.75 @	6.00
Fancy	3.25 @	3.50
Washables	2.25 @	2.50
Mixed Khaki Cuttings	3.50 @	3.75
O. D. Khaki Cuttings	4.25 @	4.50
Men's Corduroy	2.00 @	2.25
New Mixed Blacks	2.75 @	3.00

Old Rags

White, No. 1—		
Repacked	3.00 @	3.50
Miscellaneous	2.75 @	3.25
White, No. 2—		
Repacked	1.75 @	2.25
Miscellaneous	1.50 @	1.75
Thirds and Blues—		
Repacked	2.25 @	2.50
Miscellaneous	2.10 @	2.20
Roofing Rags—		
No. 1	2.00 @	2.10
No. 2	1.70 @	1.80
No. 3 (bagging)	1.60 @	1.70
No. 4	1.60 @	1.70
No. 5A	1.00 @	1.10

Foreign Rags

New Rags

New Dark Cuttings	2.25 @	2.50
New Mixed Cuttings	2.00 @	2.25
New Light Silesias	4.50 @	5.00
Light Flannelettes	4.50 @	5.00
New White Cuttings	7.00 @	7.50
New Light Oxfords	4.00 @	4.50
New Light Prints	3.00 @	3.25

Old Rags

No. 1 White Linens	7.50 @	8.00
No. 2 White Linens	6.50 @	7.00
No. 3 White Linens	4.50 @	5.00
No. 4 White Linens	2.25 @	2.50
No. 1 White Cotton	4.25 @	4.75
No. 2 White Cotton	3.25 @	3.75
No. 3 White Cotton	2.50 @	2.75
No. 4 White Cotton	1.90 @	2.15
Extra Light Prints	2.00 @	2.25
Ord. Light Prints	1.75 @	1.85
Med. Light Prints	1.55 @	1.65
Dutch Blue Cottons	2.25 @	2.50
French Blue Linens	3.50 @	4.00
German Blue Linens	2.50 @	2.75
German Blue Cottons	2.00 @	2.25
Checks and Blues	2.00 @	2.25
Linsey Garments	2.50 @	2.60
Dark Cottons	2.00 @	2.35
Old Shopperies	1.75 @	2.00
New Shopperies	1.75 @	2.00
French Blues	2.25 @	2.50

Old Rope and Bagging

(Prices to Mill f. o. b. N. Y.)

Gunny No. 1—		
Foreign	2.20 @	2.25
Domestic	2.25 @	2.35
Wool Tares, light	1.75 @	2.00
Wool Tares, heavy	2.25 @	2.35
Bright Bagging	1.75 @	1.80
Manila Rope—		
Foreign	2.40 @	2.50
Domestic	2.40 @	2.50
Mixed Strings	1.10 @	1.15
New Burlap Cut	2.00 @	2.25
Hessian Jute Threads—		
Foreign	2.60 @	2.75
Domestic	2.80 @	3.00

Old Waste Papers

(F. o. b. New York)

Shavings—		
White Envelope Cuttings	2.60 @	2.70
Ordinary Hard White No. 1	2.25 @	2.35
Hard White No. 2	2.10 @	2.20
Soft White No. 1	2.05 @	2.15
Flat Stock—		
Stitchless	.65 @	.75
Over issue Mag	.65 @	.75
Solid Flat Book	.55 @	.60
Crumpled No. 1	.35 @	.40
Solid Book Ledger	1.50 @	1.65
Ledger Stock	.85 @	.90
New B. B. Chips	.30 @	.35
Manilas—		
New Env. Cut	1.75 @	1.85
New Cuttings	1.35 @	1.45
Bogus Wrapper	.40 @	.50
Old Kraft Machine— Compressed bales	1.25 @	1.35
News—		
No. 1 White News	1.30 @	1.40
Strictly Oversisue	.50 @	.55
Strictly Folded	.32½ @	.37½
No. 1 Mixed Paper	.20 @	.25

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Twines

(F. o. b. Mill)

(Soft Fibre)

Coarse Polished—			
India	.13¼	@	.15¾
Belg. White Hemp	.14¼	@	.17¾
India Compress	.13¾	@	.14½
Fine Polished—			
Fine India	.21½	@	.23½
Special	.19½	@	.21½
Unpolished—			
Box	.12	@	.12½
Paper Makers	.09	@	.13½
Tube Rope	.10	@	.15½
Wall Paper	.11	@	.14½
Wrapping	.15½	@	.21
Special	.15	@	.15½
Soft Fiber Rope	.12½	@	.12¾

(Hard Fibre)

Bond	.12	@	.20½
Anchor	.11½	@	.13
Manila	.21	@	.22

CHICAGO

Paper

(F. o. b. Mill)

Rag Bond	.12	@	.40
Water Marked Sulphite Bond	.06¾	@	.11
Sulphite Bond	.05½	@	.07¼
Superfine Writing	.18	@	.24
No. 1 M. F. Book	.06½	@	.07¼
No. 2 M. F. Book	.05¼	@	.06¼
No. 1 S.&S.C. Book	.06¾	@	.07¾
No. 2 S.&S.C. Book	.05¾	@	.06½
Coated Book	.07	@	.12
Coated Label	.07	@	.08½
No. 1 Manila	.04¼	@	.05¾
No. 1 Fibre	.04¾	@	.05¼
No. 2 Manila	.04¼	@	.04¾
Butcher's Manila	.03¼	@	.03¾
No. 1 Kraft	4.75	@	5.00
Southern Kraft	3.88	@	4.25
No. 2 Kraft	3.88	@	4.25
Wood Tag Boards	.04¼	@	.06¼
Sulphite Screenings	.03	@	.03¾
Manila Tissue	.05¾	@	.07
White Tissue	.07	@	.09

(Delivered Central Territory)

News, per ton—			
Rolls, contract	42.00	@	—
Sheets, open	47.00	@	—
Boards, per ton—			
Plain Chip	46.50	@	—
Solid News	50.00	@	—
Manila Lined Chip	55.00	@	—
Patent Coated	65.00	@	—
Container Lined—			
85 Test, per 1000 sq. ft.			1.70
100 Test, per 1000 sq. ft.			1.85

Old Papers

(F. o. b. Chicago)

Shavings—			
No. 1 White Envelope Cuttings	1.70	@	2.00
No. 1 Hard White	1.40	@	1.65
No. 1 Soft White	1.25	@	1.50
Ledger & Writings	.60	@	.70
Solid Books	.50	@	.60
Blanks	1.00	@	1.05
Krafts	.80	@	.90
New Kraft Cuts	1.20	@	1.30
Manila Env. Cuts	1.25	@	1.30
Ex. No. 1 Manila	.90	@	1.00
Print Manila	.40	@	.50
Overissue News	.40	@	.45
Old Newspapers—			
No. 1	.30	@	.35
No. 1 Mixed Paper	.25	@	.30
Roofing Stocks—			
No. 1	30.00	@	—
No. 2	28.00	@	—

PHILADELPHIA

Paper

Rag Content Bond & Ledgers—

Delivered Zone 1	Bonds	Ledgers
100% Rag Ext. No. 1	.36	.37
100% Rag	.28	.29
75% Rag	.21	.22
65% Rag	.18	.19
50% Rag	.15	.16
25% Rag	.12½	.13½

Sulphite Bond & Ledgers—

Delivered Zone 1	Bonds	Ledgers
No. 1 Sulphite	7.75	8.75
No. 2 Sulphite	6.75	7.75
No. 3 Sulphite	6.00	7.00
No. 4 Sulphite	5.50	6.50

F.o.b. Mill

Book, M. F.	5.00	@	—
Book, S. S. & C.	5.25	@	—
Book, Coated	6.15	@	—
Coated Lithograph	6.15	@	—
No. 1 Jute Manila	10.50	@	—
Manila Sul., No. 1	6.75	@	—
Manila No. 2	4.25	@	—
No. 1 Kraft	6.00	@	—
Southern Kraft	5.00	@	—
News Print Rolls	40.00	@	—
Straw Board	40.00	@	45.00
News Board	40.00	@	—
Chip Board	37.50	@	—
Wood Pulp Board	70.00	@	85.00
Binder Boards—			
No. 1, per ton	75.00	@	80.00
No. 2, per ton	70.00	@	75.00
Carload lots	65.00	@	70.00
Tarred Felts—			
Regular	52.25	@	54.25
Slaters (per roll)	.84	@	.94

Domestic Rags (New)

(Price to Mill, f. o. b. Phila.)

Shirt Cuttings—			
New White, No. 1.	.09	@	.09¼
New White, No. 2.	.05½	@	.06
Light Silesias	.05½	@	.06¾
Silesias, No. 1	.04½	@	.05
Black Silesias, soft.	.03½	@	.04
New Unbleached	.06½	@	—
Washable, No. 1	.02	@	.02½
Blue Overall	.06	@	.06½
Cottons—According to grades—			
Washable, No. 2	.02½	@	.04½
New Blue	.02	@	.02½
Fancy	.03	@	—
New Black Soft	.04¼	@	.04¾
New Light Seconds	.04	@	.04¼
New Dark Seconds	2.00	@	—
Khaki Cuttings—			
No. 1 O. D.	.04½	@	.05
No. 2 Mixed	.03½	@	.04½
Corduroy	.02¾	@	.02½
New Canvas	.04½	@	.05
New Black Mixed.	.02¼	@	.02½

Domestic Rags (Old)

White No. 1—			
Repacked	4.00	@	4.50
Miscellaneous	3.00	@	3.50
Thirds and Blues—			
Miscellaneous	2.00	@	2.25
Repacked	2.50	@	2.75
Black Stockings (Export)	4.50	@	5.00
Roofing Stock—			
Foreign No. 1	2.20	@	2.25
Domestic No. 1	1.80	@	1.85
Domestic No. 2	1.60	@	1.65
Roofing bagging	1.45	@	—

Bagging

(F. o. b. Phila.)

Gunny, No. 1—			
Foreign	2.00	@	—
Domestic	2.25	@	—
Manila Rope	2.25	@	2.50
Sisal Rope	2.00	@	2.25
Mixed Rope	1.00	@	1.10
Scrap Burlaps—			
No. 1	2.00	@	2.50
No. 2	.90	@	1.00
Wool Tares, heavy	3.00	@	3.25
Mixed Strings	1.00	@	1.10
No. 1 New Light Burlap	3.00	@	3.50
New Burlap Cuttings	2.50	@	2.75

Old Papers

(F. o. b. Phila.)

Shavings—			
No. 1 Hard White	2.30	@	2.40
No. 2 Hard White	2.10	@	2.20
No. 1 Soft White	1.80	@	1.85
No. 2 Soft White	1.40	@	1.45
No. 1 Mixed	—	@	.85
Solid Ledger Stock	1.50	@	1.60
Ledger Stock, white	1.15	@	1.20
Ledger Stock, colored	.85	@	.90
No. 1 Books, heavy	.65	@	.70
Manila Cuttings	1.50	@	1.60
Print Manila	.50	@	.60
Container Manila	.50	@	.60
Kraft Paper	1.10	@	1.20
No. 1 Mixed Paper	.35	@	.40
Straw Board Chip	.40	@	—
Binders Board Chip	.40	@	—
Corrugated Board	.60	@	.65
Overissue News	.60	@	—
Old Newspapers	.40	@	—

BOSTON

Paper

Rag Content Bond & Ledgers—

Delivered Zone 1	Bonds	Ledgers
100% Rag Ext. No. 1	.36	.37
100% Rag	.28	.29
75% Rag	.21	.22
65% Rag	.18	.19
50% Rag	.15	.16
25% Rag	.12½	.13½

Sulphite Bond & Ledgers—

Delivered Zone 1	Bonds	Ledgers
No. 1 Sulphite	7.75	8.75
No. 2 Sulphite	6.75	7.75
No. 3 Sulphite	6.00	7.00
No. 4 Sulphite	5.50	6.50

F.o.b. Mill

Book, Super	.06	@	.09
Book, M. F.	.05½	@	.08½
Book, Coated	.08½	@	.18
Coated Litho	.09	@	.12
Jute Manila No. 1	.11	@	.13
Manila, Sul. No. 1	.04¼	@	.06½
Manila, Sul. No. 2	.03¾	@	.04½
No. 1 Kraft	.04½	@	.05
No. 2 Kraft	.04	@	.04¼

(Delivered New England points)

Southern Kraft	.03½	@	—
News Print Rolls	39.50	@	—
Straw Board, rolls	.009	—	@35.00
Filled News Board	40.00	@	45.00
Chip Board	37.50	@	40.00
Single Manila Lined Chip	47.50	@	52.50
Single White, Patent Coated News Board (Bender)	55.00	@	65.00
Wood Pulp Board	70.00	@	75.00
Binder Boards (Standard Grade)	67.00	@	75.00

Old Papers

(F. o. b. Boston)

Shavings—			
No. 1 Hard White	2.00	@	2.20
No. 1 Soft White	1.75	@	1.90
No. 2 Mixed	.75	@	.80
Solid Ledger Books	1.50	@	1.75
Overissue Ledger Stock	1.15	@	1.30
Mixed Ledgers	.85	@	.90
No. 1 Books, heavy	.60	@	.70
No. 1 Books, light	.50	@	.60
Crumpled Stitchless Book Stock	.50	@	.60
Manila Env. Cuttings	1.50	@	1.60
No. 1 Old Manila	.60	@	.65
White Blank News	1.20	@	1.25
No. 1 Kraft	1.15	@	1.20
Mixed Papers	.22½	@	.25
Print Manila	.47½	@	.50
Container Manilas	.27½	@	—
Old Newspapers	.27½	@	.32½
Overissue News	—	@	.40
Box Board Chips	—	@	.25
Corrugated Boxes	.40	@	.45
Kraft corrugated boxes	.95	@	1.00
Screening Wrappers	.40	@	.45

Bagging

(F. o. b. Boston)

Manila Rope—			
Foreign	2.35	@	2.45
Domestic	2.35	@	2.45
Transmission Rope	1.30	@	1.40
Jute Rope	2.00	@	2.25
Jute Carpet Threads	1.00	@	1.10
Gunny No. 1—			
Foreign	2.00	@	2.10
Domestic	1.85	@	1.95
Bleachery Burlap	4.50	@	5.00
Scrap Burlap—			
Foreign	2.10	@	2.15
Domestic	1.75	@	1.90
Scrap Sisal	2.00	@	2.25
Scrap Sisal for Shredding	2.25	@	2.50
Wool Tares, heavy	2.25	@	2.35
New Burlap Cuttings	2.25	@	2.35
Australian Wool Pouches	2.30	@	2.60
Heavy Baling Bagging	1.85	@	1.95
Paper Mill Bagging	1.75	@	2.00
Bagging No. 2	1.25	@	1.50

Domestic Rags (New)

(F. o. b. Boston)

Shirt Cuttings—			
New Light Prints	.01¼	@	.02
New White No. 1	.07¾	@	.08
New White No. 2	.04	@	.04½
Silesias No. 1	.05½	@	.06
New Black Silesias	.03½	@	.04¼
Soft Unbleached	.07¼	@	.07¾
Blue Cheviot	5.50	@	6.00
Fancy	.02½	@	.02¾
Washable	.0165	@	.017c
Cottons—According to grades—			
Blue Overalls	5.50	@	6.00
New Black, soft	.04	@	.04¾
Khaki Cuttings	.04	@	.04¼
O. D. Khaki	.03¾	@	.04¼
Corduroy	.01¾	@	.02
New Canvas	—	@	.05
B.V.D. Cuttings	—	@	.06¼

Domestic Rags (Old)

(F. o. b. Boston)

Canvas	.04½	@	—
White No. 1—			
Repacked	—	@	2.75
Miscellaneous	2.50	@	2.75
White No. 2—			
Repacked	1.90	@	2.00
Miscellaneous	2.00	@	2.25
Twos and Blues	1.75	@	2.25
Thirds and Blues—			
Repacked	1.37½	@	1.75
Miscellaneous	1.25	@	1.62½
Black Stockings	3.90	@	4.00
Roofing Stock—			
No. 1	1.90	@	2.00
No. 2	1.60	@	1.70
No. 3	1.50	@	1.60

Foreign Rags

(F. o. b. Boston)

Dark Cottons	1.95	@	2.05
New White Shirt Cuttings	6.50	@	6.75
Dutch Blues	2.25	@	2.50
New Checks & Blues	2.50	@	3.00
Old Fustians	1.90	@	2.00
Old Linsey Garments	2.10	@	2.25
New Silesias	4.75	@	5.25

TORONTO

Paper

(F. o. b. Mill)

Bond—			
No. 1 Sulphite	.11	@	—
No. 2 Sulphite	.08½	@	—
No. 1 Colored	.12	@	—
No. 2 Colored	.09	@	—
Ledgers			
Ledgers, No. 1	.34½	@	—
Ledgers, No. 2	.25½	@	—
Writing	.09	@	.09½
Book—			
No. 1 M. F. (Carloads)	6.50	@	—
No. 2 M. F. (Carloads)	6.00	@	—
No. 3 M. F. (Carloads)	6.00	@	—
No. 1 S. C. (Carloads)	7.00	@	—
No. 2 S. C. (Carloads)	6.50	@	—
No. 3 S. C. (Carloads)	6.50	@	—
No. 1 Coated and Litho	12.00	@	—
No. 2 Coated and Litho	10.50	@	—
No. 3 Coated and Litho	9.50	@	—
Coated tinted	13.00	@	—
Wrapping—delivered—			
Rag Brown	4.75	@	—
White Wrap	3.50	@	—
"B" Manila	4.80	@	—
No. 1 Manila	5.40	@	—
Fiber	5.40	@	—
Kraft, M. F.	5.90	@	—
Kraft, No. 2	5.40	@	—

(F. o. b. Cars Toronto)

News, per ton—			
Rolls (contract)	40.50	@	—
Sheets	45.00	@	—

Pulp

Ground wood	27.00	@	—
Unbleached Sulphite	42.00	@	—
Book (Class 1)	58.00	@	—
Writing (Class 2)	59.00	@	—
Select (Class 3)	60.00	@	—

Old Waste Paper

(In carload lots f. o. b. Toronto)

Shavings—			
White Env. Cut	2.00	@	2.25
Soft White	1.60	@	1.90
White Blk. News	1.25	@	1.40
Book and Ledger—			
Flat Magazine and Book Stock (old)	.90	@	1.00
Light and Crumpled Book Stock	.80	@	.90
Ledgers and Writings	1.00	@	1.05
Manilas—			
New Manila Cut	1.25	@	1.40
Printed Manilas	.50	@	—
Kraft	1.00	@	1.60
News and Scrap—			
Strictly Overissue	.55	@	—
Strictly Folded	.50	@	—
No. 1 Mixed Paper	.40	@	—

Domestic Rags

(Price to mills, f. o. b. Toronto)

No. 1 White Shirt Cuttings	.07½	@	.07¾
Fancy Shirt Cuttings	.02¾	@	.03

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Want and For Sale Advertisements, 52-53

RHOADS TANNATE LEATHER BELTING

RHOADS TANNATE — For Paper Mills

4 to 1 Equals 15 to 1!

In August 1929 a 34" rubber belt of well known make was put on a 200 H.P. motor drive in a paper mill, at a cost of $282.19. Four months later, "the rubber belt was unable to carry on."

December 26, 1929, it was replaced by a 34" 2-ply Tannate Leather Belt at a cost of $1117.03. January 19, 1930, this belt was shortened — "the only time a minute has been spent on the drive, and it is still going like new."

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